

ROLE OF BRAND-SPECIFIC ASSOCIATIONS IN BRAND EXTENSION

By

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The dissertation investigates the role of brand-specific associations in brand extensions. Existing research has examined the determinants of successful brand extensions at the product category level. Empirical results have found that brand affect and product category similarity influence consumer perceptions of brand extensions.

This dissertation postulates that brand-specific associations moderate the effect of brand affect and product category similarity on brand extension judgments. Brand-specific associations are defined as associations that differentiate a brand from its product level and other brands in its category. It is suggested that brands have value because of these specific associations and that consumer judgments of extensions are influenced by whether a brand's association is relevant in an extension category.

Four experiments are conducted to examine the impact of brand-specific associations on brand extensions. The first study examines the moderating role of brand-specific associations on brand affect and provides evidence that brand-specific associations may lead to preference reversals from the original to the extended category. The second experiment examines the moderating role of brand-specific associations on product category similarity and shows that brands may extend to physically dissimilar product categories.

The last two experiments investigate how knowledge of the brand mediates the role of brand-specific associations in brand extensions. These studies find that brand-specific associations moderate the effect of brand affect and product category similarity on brand extension judgments only for consumers high in brand knowledge.

Taken together, the results indicate very strong interactive effects among brand-specific associations and previously identified determinants of extension. In doing so, the results highlight the importance of recognizing the specific associations of brands when evaluating opportunities for extension.

CHAPTER I INTRODUCTION

Launching a new product is often a risky endeavor due to its high costs and low probability of success (Tauber, 1988). One strategy for improving the odds involves extending an existing brand name to the new product. The familiarity of the name may reduce the amount of advertising needed to generate awareness, and the reputation of the brand may enhance initial evaluation by consumers. Such intangibles constitute brand equity (Farquhar, 1989) and reinforce the notion that a brand name represents more than the functional attributes of a product (Jones, 1986).

Tauber (1981) identifies two possible brand name extensions--a line extension and a franchise extension. A line extension occurs when the brand name is extended by adding new flavors, sizes, or varieties within the existing product category. A franchise extension occurs when the brand name is extended to a different product. Whereas applying an existing name to a line extension is ubiquitous and intuitively appealing, franchise extensions are less obvious and produce less predictable results. Specifically, the greater upside potential of a brand extension must be weighed against a higher likelihood of failure and potential negative impact on

the brand name itself (Jones, 1986; Tauber, 1988). This dissertation will examine franchise extensions.

Despite the benefits and risks of brand extension and its long tradition, research on the topic is in its infancy. Initial studies have followed the natural tendency to determine at a general level which variables are associated with successful brand extension. The preliminary findings of this research serve as partial motivation for this dissertation. Specifically, two factors have emerged that appear to account for extendibility of a brand name: similarity of the original and extended product classes and consumer attitude toward the brand in question (Aaker and Keller, 1990; Boush and Loken, 1991; University of Minnesota Consumer Behavior Seminar, 1987).

At one level these conclusions seem plausible and straightforward, and they undoubtedly affect consumer reaction to brand extensions. However, research and intuition suggest a more complicated picture. Prior research has mainly addressed product category effects and ignored brand effects. This dissertation attempts to demonstrate that brand-specific associations moderate the impact of these product category effects on consumer judgments of brand extensions.

Chapter II begins with a survey of the literature on brand extensions and brand-specific associations. The role of brand-specific associations in brand extensions is conceptualized. Hypotheses are developed that involve the

interaction of brand-specific associations and brand affect and product category similarity. The influence of consumer brand knowledge is also discussed.

Chapter III presents a series of pretests for stimulus development. Chapter IV presents the method and results of an experiment designed to test the interaction of brand-specific associations and brand affect. Chapter V presents the method and results of an experiment designed to test the interaction of brand-specific associations and product category similarity.

The next two chapters examine the moderating role of brand knowledge on the influence of brand-specific associations in brand extensions. Chapter VI presents the method and results of an experiment designed to examine the effect of brand knowledge on the influence of brand-specific associations and brand affect in extension judgments. Chapter VII presents the method and results of an experiment designed to test the effect of brand knowledge on the influence of brand-specific associations and product category similarity in extension judgments.

Chapter VIII provides a general discussion of the findings and the implications of these results for research on brand extensions. Managerial implications of these findings and directions for future research are also discussed.

CHAPTER II

CONCEPTUAL BACKGROUND ON THE ROLE OF BRAND-SPECIFIC ASSOCIATIONS IN THE EVALUATION OF BRAND EXTENSIONS

Overview

The value of a brand name may be defined not only in terms of the advantages it provides in its current competitive arena but also in terms of the potential advantages it offers in untapped markets (Srivastava and Shocker, 1991). This realization has led to increasing reliance on brand extension as a strategy for achieving corporate growth (Springen and Miller, 1990). The rationale underlying this new product strategy is that extended brands offer enhanced profit potential as a result of lower introductory costs and higher consumer acceptance (Tauber, 1988).

The increase in brand extensions has led to a recent upsurge in research, particularly with respect to consumer reactions to brand extensions. Specifically, there is now much interest in identifying those factors that moderate consumer evaluations of the extended brand. Initial research has been exploratory and attempted to isolate at a general level the variables that influence perceptions of an extension (Aaker and Keller, 1990; MacInnis and Nakamoto, 1990). Initial results suggest that attitude toward the brand and product

category similarity are factors that influence the extendibility of a brand.

Other research has been more concerned with isolating the processes that underlie consumer reactions and consequently has used a more experimental approach. Ironically, however, these studies have either explicitly framed brand effects out of the equation by using fictitious brand names (Boush and Loken, 1991; Keller and Aaker, 1992; University of Minnesota Consumer Behavior Seminar, 1987) or have been designed in such a way that brand effects cannot be isolated from product class effects (Aaker and Keller, 1990; Chakravarti, MacInnis and Nakamoto, 1990).

Yet, brand-specific associations are an integral part of a brand's strength for leveraging. This paper focuses on the role of brand effects in brand extensions.

Brand-Specific Associations

A brand-specific association is defined as an association that differentiates a brand from its product level and other brands in its category (Chakravarti, MacInnis, and Nakamoto, 1990; Srinivasan 1979). Brands have value because of their associations to specific attributes or benefits. Marketing efforts to differentiate a brand may generate an association not included in the product category representation or make the association stronger for a brand than its category level or other brands in its category (Sujan and Bettman, 1989).

Brand-specific associations may include physical attributes (e.g., Pringles potato chips come in a can), benefits (e.g., Pringles' packaging is resealable), usage situations (e.g., Pringles are easy to pack for trips), or users (e.g., Pringles are for light snack eaters). Although a brand may solely possess an association, a subset of brands in a category often have similar positionings as evidenced by market segmentation. Because firms invest considerable resources to position their brands in consumer minds (Ries and Trout, 1981), it seems reasonable that they would want to leverage this asset in potential extensions.

Furthermore, the fact that consumers think in terms of benefits is consistent with theory in marketing and cognitive psychology. Benefit segmentation is based on the principle that people seek the benefits that products provide rather than the physical product itself. Day, Shocker, and Srivastava (1979) posit that to identify market structures from a consumer perspective, product markets need to be broadly defined as the set of product substitutes for a specific usage situation in which similar benefits are desired.

Additionally, research on categorization suggests that these positionings may cut across product categories. At some level of abstraction, brand-specific associations help consumers achieve goals (Park and Smith, 1989), and seemingly unrelated products may be categorized together if they share a common goal (Barsalou, 1983, 1985). As a need arises,

individuals are quite adept at forming goal-derived categories, and recent evidence suggests that such categories may be established in memory (Barsalou, 1991). In fact, in a marketing context, Ratneshwar and Shocker (1991) find that consumers have established memory structures for one type of brand-specific association, usage situations. Thus, if a brand association is relevant in another product category, a brand extension into that category is likely to be viewed favorably because the product benefits desired are already associated with the brand name.

As noted, existing research has curiously ignored this brand effect by examining brand extensions from a product class level (Boush and Loken, 1991; University of Minnesota Seminar, 1987), using fictitious brand names (Keller and Aaker, 1992), or confounding brand and product category effects by only extending one brand from each product category (Aaker and Keller, 1990; Chakravarti et al., 1990). Some research has recognized brand effects but has found little positive effect (MacInnis and Nakamoto, 1990; Rangaswamy, Burke, and Oliva, 1990). In these cases, however, extension categories were not selected to be congruent with the brand-specific association.

Fortunately, one study has examined brand-specific associations and their importance in determining extension categories (Park, Milberg, and Lawson, 1991). They examined two broad types of brand associations and found that if the

brand-specific association was relevant in the extension category, evaluations of the brand extensions were more favorable. Consistent with Park et al. (1991), this paper takes the strong position that category effects should not be isolated from brand effects. That is, the effect of brand-specific associations may be so pervasive and overwhelming that main effects of brand attitude and product category similarity may be misleading. In the present research, multiple brand-specific associations are examined, and moreover, are directly compared with the other factors previously reported to be important moderators of extendibility.

Brand-Specific Associations Versus Attitude Toward the Brand

One possible mechanism by which the extended brand is thought to be evaluated is a transfer of the brand's affect to the extended product. This affect transfer is thought to occur only if the original and extended product categories are similar. In support of this, Aaker and Keller (1990) find that a product's quality primarily transfers to the extended product if the new product is deemed a substitute or complement of the original product and Boush and Loken (1990) find a direct relationship between product category similarity and affect transfer.

Although this process may occur, the affect transfer model (Fiske and Pavelchak, 1986) involves a process different

than that proposed in brand extensions. In the Fiske and Pavelchak model, an object is compared to objects in another category, and if object similarity is high, attitude toward the category is transferred to the object. In brand extension, two categories are supposedly compared, and if similarity is high, attitude from the object is transferred. This misconception does not rule out affect transfer, albeit by a different route, but leaves open the possibility that the extended product is evaluated based on its attributes regardless of product category similarity. This would seem to be especially true if, unlike the forementioned studies, brands had salient associations that were relevant in the extension category. Park et al. (1991) did not investigate the process of extended brand evaluation and purposively controlled for brand affect.

The preceding logic suggests that when purchasing a product, the consumer is trying to satisfy a need and this drives their selection among alternative brands. If an extended brand's associations satisfy this need, the brand should be favorably evaluated. Thus, an extended brand may be evaluated based on whether its association is relevant in the extended category and its brand affect. Affect transfer implies that the only reason brands from the same original product category would have differential prospects for success in the extended category is that some brands engender greater positive affect. However, based on goal relevance, it is

predicted that there will be a brand-specific association X brand affect interaction. The strongest form of this interaction suggests that the preference ordering from the original to the extended product category may be reversed when the brand-specific association of a less preferred brand is relevant in the extension category. Experiment 1 examines brand-specific associations and brand affect in extensions.

Brand-Specific Associations versus Category Similarity

Product category similarity has face validity as a factor in brand extensions. However, Murphy and Medin (1985) argue that the standard definition of similarity as the degree of feature overlap (Tversky, 1977) is inadequate because it ignores the relevance of needs, goals, and theories. They propose that the presence of a single relational match may produce a high similarity judgment if the relation is important in a product category. Here, similarity is not a blind mapping of features but rather the search for connections between otherwise dissimilar objects, as with noncomparable alternatives (Johnson, 1984). We argue that there is no necessary reason to expect consumers to make judgments of overall similarity when evaluating the extended product. When connections are present, the individual must comprehend them, and from a managerial perspective, be persuaded by them. When connections are nonobvious, inference may be required.

The results on product category similarity in brand extensions have been equivocal. Some have found that product category similarity and brand extension evaluation are positively related (Aaker and Keller, 1990; Boush and Loken, 1991; MacInnis and Nakamoto, 1990; University of Minnesota Consumer Behavior Seminar, 1987), and others have found little or no effect (Keller and Aaker, 1992; Park et al., 1991). The most pertinent finding is from Park et al. (1991) who found that product category similarity seemed to have less effect on a prestige-oriented brand than a functional brand, perhaps because the abstract prestige image connection was easier to make. However, they did not directly compare brand-specific associations with product category similarity to see which a manager should be more concerned about when extending a brand. Moreover, their results imply that nonimage brand effects may be limited.

If the brand-specific association is salient and relevant in the extension category, consumers should respond to the congruity of two products sharing the same name, regardless of the type of association. Therefore, it is predicted that not only will there be a brand-specific association X product category similarity interaction, but that brand-specific associations will dominate product category similarity if the association is important in the extended category. Experiment 2 directly compares the roles of brand-specific associations and product category similarity in extension judgments.

Moderating Effect of Brand Knowledge

Knowledge of the brand is obviously necessary for brand effects to influence extension judgments. Although familiarity with the brand name may produce some brand effects, a knowledge of the brand-specific association is required for consumers to make the connection that the brand benefit is relevant for the extension category.

The likelihood that consumers will make these inferences increases with knowledge (Alba and Hutchinson, 1987). More important, knowledgeable consumers are more likely to be analytic when judging the congruity between an original and extended brand (cf. Alba and Hutchinson, 1987; Brewer, 1988; Muthukrishnan and Weitz, 1991).

If the foregoing logic is true, then brand knowledge should moderate the effects of brand-specific associations in brand extensions. Thus, if brand knowledge is low, one would expect main effects of brand affect and product category similarity to predominate in brand extensions, whereas if brand knowledge is high, one would expect brand effects to interact with these determinants. Experiments 3 and 4 examine the moderating effect of brand knowledge on the use of brand-specific associations in extension evaluations.

CHAPTER III STIMULUS DEVELOPMENT

Overview

The reasoning developed in the last chapter concerned how brands may have specific associations that differentiate them from their product category level and other brands in their product category. These brand-specific associations are expected to interact with brand affect in extension judgments. Furthermore, brand-specific associations may allow a focal brand to be more preferred in an extended product category than other brands, even though the other brands are more preferred in the original product category.

This chapter discusses four pretests required to test the hypotheses and two posttests that served as manipulation checks. The pretests were designed to identify a comprehensive set of brands that

- (a) were familiar to all subjects,
- (b) had specific associations that were highly salient but not image-based,
- (c) had associations that differentiated them from the their product categories and other brands in those categories, and
- (d) had not been extended previously.

The pretests sequentially narrow the set of possible brands for experimental testing. The first and second pretests involve identifying brands with specific associations. The third pretest examines brand affect and image ratings. The fourth pretest generated potential extensions for the brands. Two tests that served as manipulation checks were conducted after the first experiment and are reported at the end of this chapter.

Pretest 1

The purpose of this pretest was to identify all brands that would meet the aforementioned requirements. The first required identification of a set of product categories and examination of the brands within each category to determine if they met the constraints.

A comprehensive set of 119 product categories along with the major brands within each was gathered from examining a retail catalog, Simmons market research data, a supermarket inventory list, and other catalogs. The categories include durables, clothing, food products, healthcare products, and services. An entire listing of categories and brands is presented in Appendix IA-1. This set was examined to determine product categories that contained brands with specific associations.

Specifically, three judges examined the list of product categories. The judges were instructed to examine each product category to determine if it contained at least two familiar

brand names with specific, nonoverlapping associations that had not been multiply extended. The exact instructions to the judges are detailed in Appendix IA-2.

The three judges were in complete agreement on 76% of the product categories. In cases in which there was disagreement, the product categories were retained for further pretesting if two judges agreed that the criteria had been met. Most categories of durable goods were eliminated because their brands had been extended previously. For instance, the Black & Decker name is applied to product categories that range from irons to power tools. Surprisingly, most services were also eliminated because the judges felt that there was little differentiation among brands. In total, 31 product categories were liberally identified as meeting the criteria and were retained for additional pretesting. These categories are denoted by an asterisk in Appendix IA-1.

Pretest 2

The purpose of this pretest was to identify the specific associations of the remaining brands. A free association task was employed to determine each brand's specific association and subsequently to compare the associations among brands within a product category for uniqueness.

For each product category, associations were taken for the product category level and at least two high profile brands within that category. Seventy-two subjects wrote their

thoughts for brand names, while thirty subjects wrote their thoughts for product categories. Subjects were run in groups of up to twenty participants. Each subject provided their associations for ten to twelve brands (product categories), with each brand coming from a different product category. Each brand (category) was printed atop its own page in the stimulus booklet. The task instructions informed subjects that 30 seconds would be allotted to generate associations for each item, and that these associations would include physical product features, usage situations, or any other thoughts (see Appendix IB-1).

The associations for each brand and product category that were mentioned by at least 20 percent of its respondents are listed in Appendix IB-2. Associations to a given brand were compared with associations to other brands in its category and to the category itself. Brand associations that appear in bold in Appendix IB-2 are those considered to be brand-specific associations. Brands were considered to have a brand-specific association if they had an association that was (a) unique from other brands and the category level or (b) twice as salient for the brand than other brands and the category.

The results show that most brands had specific associations. These specific associations included physical features of the product such as size (e.g., Honda was viewed as small), color (e.g., Froot Loops is a multi-colored cereal), texture (e.g., Wonder is a soft bread), and packaging

(Pringles potato chips come in a can). Brand-specific associations also included benefits (e.g., Bactine is a soothing first aid remedy), usage situations (e.g., Pepsi soda can be a morning drink), and users (e.g., Apple computers are used by kids).

Nine product categories were dropped from further pretesting because they contained brand-specific associations that were derived solely from their commercials or because further examination revealed that the brands already had multiple extensions. The luggage, automobile tires, and paper towel product categories were eliminated because their brand-specific associations related to their ad executions or spokesperson (e.g., Rosie in Bounty commercials) which were deemed unacceptable as a basis for extension. The pen, cleansing cream, fruit juice, toys, and battery, and picnic cooler product categories were eliminated because brand-specific associations only belonged to brands that had been multiply extended.

Pretest 3

To test the hypothesis that inferences about brand-specific associations can lead to brand preference reversals between the original and the extended product categories, it was necessary to measure brand preference in the original product category. In addition to having a brand-specific association, the focal brand had to be less preferred in its

original product category than a comparison brand. The purpose of this pretest was identify brands that possessed specific associations and were less preferred than another brand in their product category. Additionally, because the focus of this research is on brand-specific associations unrelated to image, brands with prestige images needed to be identified and eliminated from consideration.

At least four brands from each of the remaining 22 product categories were rated for their affect and image. Affect was measured by having subjects indicate their brand preference on a nine point scale from dislike to like. Image was defined as conveying prestige or high status to other people and measured by having subjects indicate the extent to which brands have a self-expressive image to other people on a nine point scale from not at all to very much. Instructions to subjects included an example on rating brands for their image (see Appendix IC-1).

Sixty undergraduate subjects participated in this pretest. To avoid carryover effects from one scale to the other, the categories were divided into two sets. One group of 30 subjects gave preference ratings for Set 1 and then image ratings for Set 2. Another group of 29 subjects first gave preference ratings for Set 2 and then image ratings for Set 1. The ratings for affect and image are shown in Table III-1.

The differences in mean ratings were analyzed by performing contrasts on a repeated measures analysis of

TABLE III-1

BRAND MEANS FOR PRETEST 3

	<u>Preference</u>	<u>Image</u>
1) LAUNDRY DETERGENT		
A) Surf	5.40 ^D	2.86 ^{CD}
B) Wisk	5.32 ^D	3.24 ^D
C) Cheer	6.10 ^D	4.03 ^{AD}
D) Tide	7.52 ^{ABC}	4.45 ^{ABC}
2) SUNTAN LOTION		
A) Coppertone	5.90 ^{CD}	5.03 ^{BC}
B) Hawaiian Tropic	6.68 ^C	6.00 ^{AC}
C) Sea & Ski	4.33 ^{ABD}	3.97 ^{ABD}
D) Bain de Soleil	7.00 ^{AC}	5.97 ^C
3) WINE		
A) Gallo	5.06 ^C	4.72 ^C
B) Inglenook	4.27	4.52 ^C
C) Paul Masson	4.39 ^A	5.48 ^{AB}
D) Taylor	4.61	4.93
4) STOMACH REMEDY		
A) Maalox	4.57 ^B	2.86 ^{BCD}
B) Roloids	5.60 ^A	3.61 ^A
C) Pepto-Bismol	5.42	4.11 ^A
D) Alka-Seltzer	5.71	3.93 ^A
5) BICYCLE		
A) Cannondale	5.87 ^D	6.28 ^D
B) Schwinn	6.74 ^D	6.00 ^D
C) Raleigh	6.35 ^D	5.48
D) Huffy	4.65 ^{ABC}	4.03 ^{AB}
6) BREAD		
A) Wonder	4.90 ^{CD}	3.83 ^{CD}
B) Bakery Goodness	5.28 ^{CD}	3.07 ^{CD}
C) Pepperidge Farm	6.58 ^{ABD}	5.93 ^{AB}
D) Nature's Own	7.67 ^{ABC}	5.45 ^{AB}

TABLE III-1 -- continued

	<u>Preference</u>	<u>Image</u>
7) TOPICAL FIRST AID		
A) Campho-Phenique	5.90 ^{BCD}	3.29
B) Bactine	4.77 ^{AD}	3.68
C) Lanacane	4.67 ^{AD}	3.36 ^D
D) Neosporin	6.77 ^{ABC}	4.25 ^C
8) PEANUT BUTTER		
A) Roddenbury	4.50 ^{BCD}	4.69
B) Peter Pan	6.74 ^A	5.14
C) Skippy	6.26 ^A	5.28
D) Jif	7.10 ^A	4.72
9) BEER		
A) Budweiser	6.84 ^{BD}	6.14 ^C
B) Coors	5.58 ^{ACD}	5.66 ^{CD}
C) Michelob	7.45 ^{BD}	7.37 ^{AB}
D) Lowenbrau	4.22 ^{ABC}	6.93 ^B
10) POTATO CHIPS		
A) Lay's	6.77 ^D	4.31 ^{BC}
B) Ruffles	6.90 ^{CD}	5.52 ^{AD}
C) Pringles	5.90 ^B	5.27 ^{AD}
D) Wise	4.97 ^{AB}	3.76 ^{BC}
11) WATCH		
A) Seiko	6.72 ^{BD}	6.13 ^{CD}
B) Swatch	4.83 ^{AC}	5.19 ^C
C) Rolex	7.72 ^{BD}	8.65 ^{ABD}
D) Timex	5.00 ^{AC}	4.51 ^{AC}
12) DEODORANT		
A) Arrid	3.97 ^C	2.65 ^{BD}
B) Secret	4.55	4.10 ^{AC}
C) Sure	4.82 ^A	3.13 ^B
D) Right Guard	4.79	3.55 ^A
13) COMPUTER		
A) IBM	8.14 ^{BCD}	7.45 ^{BCD}
B) Compaq	5.32 ^A	5.42 ^{ACD}
C) Apple	6.52 ^A	6.60 ^{AB}
D) Hewlett-Packard	5.93 ^A	6.27 ^{AB}

TABLE III-1 -- continued

	<u>Preference</u>	<u>Image</u>
14) AUTOMOBILE		
A) BMW	7.72 ^{CD}	8.81 ^{BCD}
B) Honda	7.07 ^C	6.68 ^{AC}
C) Ford	4.79 ^{ABD}	4.97 ^{ABD}
D) Acura	6.55 ^{AC}	7.29 ^{AC}
15) TOOTHPASTE		
A) Crest	7.07 ^{BCD}	4.87 ^B
B) Close-Up	5.97 ^{AD}	5.68 ^{ACDE}
C) Aqua Fresh	5.31 ^{AD}	4.38 ^B
D) Ultra Brite	4.21 ^{ABCE}	4.17 ^B
E) Colgate	6.31 ^D	4.68 ^B
16) SOAP		
A) Irish Spring	5.14 ^B	4.39
B) Ivory	6.52 ^{AC}	4.35
C) Camay	4.24 ^{BD}	3.80
D) Dial	6.10 ^C	3.65
17) SHAMPOO		
A) Head & Shoulders	4.14	4.23 ^{CD}
B) Suave	4.34	3.19 ^D
C) Prell	4.14	3.06 ^{AD}
D) Vidal Sassoon	5.03	5.45 ^{ABC}
18) PAIN RELIEVER		
A) Bayer	5.10 ^{BC}	3.77 ^{BC}
B) Tylenol	7.41 ^{AD}	4.77 ^{AD}
C) Advil	7.38 ^{AD}	5.19 ^{AD}
D) Bufferin	4.62 ^{BC}	3.35 ^{BC}
19) SOFT DRINK		
A) Coca-Cola	7.41 ^{BC}	6.17 ^B
B) 7-Up	6.17 ^A	4.77 ^A
C) Dr. Pepper	5.38 ^A	5.30
D) Pepsi	6.69	5.58
20) GUM		
A) Trident	5.48	4.26 ^B
B) Carefree	5.07	3.63 ^A
C) Bubble Yum	4.45 ^D	3.81
D) Big Red	5.93 ^C	4.10

TABLE III-1 -- continued

	<u>Preference</u>	<u>Image</u>
21) GYM SHOES		
A) Reebok	6.64 ^B	7.04 ^{CD}
B) L.A. Gear	3.76 ^{ACD}	7.92 ^{CD}
C) New Balance	5.65 ^{BD}	4.09 ^{AB}
D) Nike	7.60 ^{BC}	5.67 ^{AB}
22) CEREAL*		
A) Lucky Charms	5.34	
B) Cheerios	5.10 ^C	
C) Froot Loops	6.48 ^{BD}	
D) Wheaties	4.83 ^C	

Means were on a 9 point Scale (N=29 or N=31) and a letter indicates a significant difference of $p < 0.05$.

- * The cereal product category inadvertently left out certain brands and these data were collected for 29 subjects at a later time.

variance for each product category. Differences that were significant at a 0.05 level are superscripted by a letter indicating the contrast brand. Based on these results, fourteen product categories were eliminated.

The nine product categories of deodorant, shampoo, peanut butter, pain reliever, bicycle, topical first aid remedy, soft drink, stomach remedy, and suntan lotion were eliminated because preference differences did not exist on brands identified as having brand-specific associations.

The product category of soap only showed a marginal preference for Irish Spring over Camay, $F(1,29) = 2.96$, $p < 0.09$. The overall difference in soap preference was due exclusively to a preference by men for Irish Spring, [$(\bar{M} = 5.27$ vs. $\bar{M} = 3.47)$, $F(1,14) = 6.78$, $p < 0.02$]; females showed

no preference difference, [$\bar{M} = 5.00$ vs. $\bar{M} = 5.07$), $F(1,13) = 0.08$, $p > 0.78$]. It was thought that this example would provide a strong test of the influence of affect in brand extension evaluations. That is, if both men and women equally like the potential brand extensions of Camay, then further evidence of the relative role of brand-specific associations over affect is provided. For this reason, Camay was retained as a potential stimulus brand.

The categories of wine and gym shoes were eliminated because their preference and image ratings were in opposition. That is, the less preferred brand with a specific association had a higher image than the more preferred brand which would confound a preference reversal result.

Unfortunately, many image differences existed between brands in the remaining thirteen product categories. To test the hypotheses on as large a set of stimuli as possible, it was deemed acceptable to covary out these image differences in the experiment as long as preference and image differences among the brands were in the same direction and a large preference differential did not exist. Three product categories were dropped because the image differential between brands was deemed to be excessive: watch (Timex vs. Rolex), bread (Nature's Own vs. Wonder), and auto (Ford vs. Honda).

Thus, eight product categories remained for further pretesting. The focal and comparison brands for each product category are shown in Appendix IC-2. The focal brand possessed

a brand-specific association and was less preferred than its comparison brand. While the comparison brand often had a brand-specific association, this was not a requirement. Its main purpose was to serve as a representative for its product category. This point will be discussed further in Posttest 1.

Pretest 4

The purpose of the fourth pretest was to have subjects generate potential extensions for brands that would be used as product extension stimuli for experiment 1. By having subjects generate potential extensions, the test of preference reversals would be on a set of extensions that subjects believed were plausible.

Thirty-three subjects generated potential brand extensions for the eight product categories. Eight subjects generated potential extensions to a product category level cue. Twenty-five other subjects generated potential extensions to the brand name cue of either the focal or comparison brand within a given category. The order of product categories was randomized. Subjects were given one minute to generate potential extensions to each cue. They were asked to help a firm identify possible areas of expansion for a product (see Appendix ID-1).

Subjects generated a wide range of potential extensions and appeared to consider a brand's specific association when deciding where to extend. For instance, possible Cheerios'

extensions such as oatmeal and trail mix incorporate its brand-specific association of plain taste. Table III-2 contains the extensions generated by subjects for each cue in the product categories. Extensions that were common responses across the three cues are listed in the common category. The remaining extensions generated are grouped after their respective cue.

This pretest also pointed out that three additional product categories should be deleted. The lack of differentiation between cues in the laundry detergent product category pointed out that stain removing had erroneously been deemed a unique association of Wisk in Pretest 2. Because stain-fighting was equally salient at the product category level and the brand level of Wisk, it is not a brand-specific association, and the laundry detergent category was eliminated. The gum category was eliminated because it overlapped with potential extensions of toothpaste and cereal. Because the focal brand of Bubble Yum had the same brand-specific association as Froot Loops cereal and the comparison brand of Big Red had the same association as Close-Up toothpaste, the presence of gum in the set might have contaminated the results of the main experiment in as much as product category was a within-subjects factor. The potato

TABLE III-2

RESULTS OF PRETEST 4

SUBJECT-GENERATED EXTENSIONS

LAUNDRY DETERGENT

Common Extensions

Across Cues:

Fabric Softener, Bleach, Dishwashing
Liquid, Washer, Dryer, Household
Cleaner, Stain Remover, Soap, Laundry
Basket

Wisk:

Air Freshener, Fabric Protector, Starch,
Dishwasher, Shampoo, Lint Remover,
Sponges

Tide:

Car Wax, Air Freshener, Toothpaste,
Towels, Shampoo, Carpet Cleaner,
Upholstery Cleaner

Category:

Clothes, Clothes Hangers, Clothes Line,
Ironing Board, Iron, Starch, Machine
Degreaser

POTATO CHIPS

Common Extensions

Across Cues:

Chip Dip, Soft Drinks, French Fries,
Mashed Potatoes, Corn Chips, Tortilla
Chips, Popcorn

Pringles:

Instant Potatoes, Microwave Side Dishes,
Pretzels, Potato Skins, Crackers,
Cookies, Bread, Snack Cakes, Cheese
Puffs, Frozen Pizza, Candy, Vegetable
Oil, Cheese

Ruffles:

Potato Skins, Chip Container, Flavors,
Bread, Candy, Cereal, Crackers, Tater
Tots

Category:

Pretzels, Beer, Chip Warmer, Chip Clip,
Pork Rinds, Tater Tots, Instant
Potatoes, Peanuts, Salt, Oil, Flavors,
Cheese Spread, Preservatives

TABLE III-2 -- continued

CEREAL

Common Extensions
Across Cues:Poptarts, Bread, Milk, Juice, Pastries,
Breakfast Bar, Granola

Cheerios:

Oatmeal, Vitamins, Breakfast Drink,
Trail Mix, Sweet Kid Variety, Bird Feed,
Candy, Snacks, Cereal Bowl, Flavor
Variety, Cookies

Froot Loops:

Cookies, Candy, Toys, Fruit-Roll Up,
Ice Cream, Gum, Popsicles, Video Game,
Flavors, Crayons, Chips, Low Sugar
Variety, Cereal Bowls, Oatmeal, Games

Category:

Pancake Mix, Pancake Syrup, Oatmeal,
Muffins, Animal Feed, Alcohol Products,
Dried Fruit, Boxes, Toys, Party Mix,
Grits, Snacks, Sugar

BEER

Common Extensions
Across Cues:Mugs, Glasses, Clothes, Beach Towel,
Potato Chips, Soft Drinks, Wine Coolers,
Water, Snack Foods

Coors:

Ice Chest, Party Supplies

Budweiser:

Hard Alcohol, Flag, Posters, Sports,
Kegs, Hat, Watch, Pizza, Bottle Opener

Category:

Hard Alcohol, Can Insulator, Coasters,
Flavors, Tea, Ice Chest, Signs,
Cigarettes

COMPUTER

Common Extensions
Across Cues:Software, Video Games, Stereo, Printer,
Monitor, Television, Modem, Instruction
Manual, Calculator, Telephone

Apple:

VCR, Copy Machine, Desk, CB, Radio, Disk
Container

IBM:

Typewriter, Ribbon, Modem, Camcorder,

TABLE III-2 -- continued

COMPUTER continued

Category: Desk, Chairs, Disks, Disk Container,
Paper, Keyboard, Covers, Typewriter,
Sunglasses, Mouse, Joystick, Desk Lamp,
Ribbon, Course

BAR SOAP

Common Extensions Shampoo, Conditioner, Liquid Soap,
Across Cues: Body Lotion, Towels, Toilet Paper, Dish
Detergent, Laundry Detergent, Soap Dish

Camay: Facial Moisturizer, Facial Cleanser,
Bath Beads, Sunscreen, Make-up, Scented
Variety, Hand Lotion, Talcum Powder,
Deodorant, Fresh Wipes, Bath Rug

Irish Spring: Deodorant, Cologne, Aftershave,
Detergent, Air Freshener, Bubble Bath,
Household Cleaners, Facial Soap, Make-
up, Air Conditioner, Shower Gel, Talcum
Powder, Perms, Combs, Bath Mat

Category: Bath Mat, Bath Rug, Shower Curtain,
Facial Soap, Household Cleaners, Facial
Cleanser, Washclothes, Combs, Brushes,
Hand Lotion, Shaving Cream, Make-up
Remover

TOOTHPASTE

Common Extensions Toothbrush, Dental Floss, Mouthwash,
Across Cues: Dental Drill, Fluoride

Close-Up: Breath Mints, Gum, Fluoride Variety,
Tooth Whitener, Acne Medicine, Fluoride
Rinse, Denture Cleaner, Soap

Crest: Dental Kit, Plaque Remover, Water Pik,
Gum Medication, Electric Toothbrush,
Gum, Sugarfree Candy, Throat Lozenges,
Breath Mints, Shampoo, Soap, Towels

TABLE III-2 -- continued

TOOTHPASTE continued

Category: Toothbrush Holder, Teething Medicine,
Dental Polish, Tooth Whitener, Fluoride
Rinse, Denture Cleaner, Dental Adhesive,
Toothpicks, Deodorant, Candy

GUM

Common Extensions Across Cues: Candy Bars, Baseball Cards, Blow Pops,
Breath Mint, Sugarfree Variety, Hard
Candy

Bubble Yum: Soft Drink, Toys, Comic Book, Gum Balls,
Jello, Mint Variety, Cereal, Clothes,
Skateboards, Bikes, Cereal, Shoes

Big Red: Cinnamon Red Hots, Mouthwash,
Toothpaste, Soft Drink, Ice Cream,
Flavor Variety, Gum Wrapper

Category: Tic Tac, Chewing Tobacco, Gum Wrapper,
Medicated Gum, Toothpaste, Gumball
Machine, Taffy

chips category was eliminated because subjects had trouble generating extensions to the attributes of ridges, can, and processed. Thus, five product categories remained to test the hypotheses.

These five product categories met the criteria outlined at the beginning of this chapter. The product categories contained two familiar brands, one of which had a specific association, had not been multiply extended, and was less preferred than its counterpart. Although it is not possible to eliminate the effects of image completely, the brands that survived all four pretests are notably low on the image dimension, particularly in comparison to brands used by Park et al. (1991).

Manipulation Check 1

From the pool of responses obtained from Pretest 4, the experimenter selected extension categories that manipulated the match between a brand's specific association and the relevance of that association in the extension category. For each product category, two extension categories were selected. One extension matched the focal brand's association and the other extension matched the comparison brand's or the product category's association.

To corroborate the experimenter's choice of extensions, a manipulation check was performed. Recall that the hypothesis concerned whether preference for the focal brand would reverse from the original to the extended product category. Thus, the emphasis in stimulus selection was on the focal brand. The focal extension category was chosen such that there was a match between the focal brand's specific association and the relevant attributes in that product category. The other extension category served as a control where the comparison brand was expected to retain its preference advantage. To facilitate the selection of stimuli, this comparison extension category either contained an association that was relevant specifically for the comparison brand or for the product category.

Fourteen subjects participated in this test. Each subject rated how relevant a specific association was for four product categories on a nine point scale from not at all relevant to

very relevant. For each association, two focal extension categories and two comparison categories were tested. The instructions to subjects and a sample of the stimulus test are presented in Appendix IE.

The mean relevance ratings are exhibited in Table III-3. The means were analyzed by a within-subject analysis of variance. Contrasts among the means for a given association were performed. These results demonstrate that the focal brand's association was relevant in the selected focal extension category and the comparison brand or product category association was relevant in the comparison extension category.

Manipulation Check 2

Different methodologies for extracting brand associations may produce different results (Barnard and Ehrenberg, 1990). Therefore, this test examines brand associations using a rating scale method. Given the short generation period, the free association task used in the preceding test was a measure of top of mind awareness. Thus, the associations listed were likely to be highly salient. The rating scale measure may be more sensitive to subtle differences in association strength. An association may be an integral component of a brand concept, but may not be listed in a free association task

because it seems too mundane. For example, a subject may not list "cleans" as an attribute for a soap brand, because he/she

TABLE III-3

MANIPULATION CHECK 1

MEANS FOR ASSOCIATION RELEVANCE IN EXTENSION CATEGORIES

1) SKIN SOFTENING	
A) Deodorant	1.86 ^{BD}
B) Moisturizer	8.71 ^{ACD}
C) Cologne	2.29 ^{BD}
D) Cleansing Cream	7.50 ^{ABC}
2) SWEETNESS	
A) Lollipops	8.57 ^{BD}
B) Oatmeal	3.00 ^{ACD}
C) Toasted Pastry	7.86 ^{BD}
D) Waffles	4.14 ^{ABC}
3) DENTAL PROTECTION	
A) Toothbrush	8.93 ^{CD}
B) Dental Floss	8.50 ^{CD}
C) Mouthwash	6.07 ^{ABD}
D) Breath Mints	4.00 ^{ABC}
4) TECHNOLOGY	
A) Cellular Phone	8.29 ^B
B) Instructional Tapes	3.71 ^{ACD}
C) Stereo	7.86 ^B
D) Video Games	7.57 ^B
5) LIGHT TASTE	
A) Scotch	2.57 ^B
B) Wine Cooler	5.79 ^A
C) Bottled Water	6.21 ^A
D) Beer Mug	3.93
6) SCENT	
A) Deodorant	7.71 ^{BCD}
B) Moisturizer	6.29 ^{AC}
C) Cologne	8.86 ^{ABD}
D) Cleansing Cream	5.93 ^{AC}

TABLE III-3 -- continued

7) BLANDNESS	
A) Lollipops	2.14 ^{BCD}
B) Oatmeal	5.50 ^{AC}
C) Toasted Pastry	2.93 ^{AB}
D) Waffles	4.21 ^A
8) BREATH FRESHENING	
A) Toothbrush	2.29 ^{CD}
B) Dental Floss	2.21 ^{CD}
C) Mouthwash	8.86 ^{AB}
D) Breath Mints	9.00 ^{AB}
9) USER FRIENDLINESS	
A) Cellular Phone	7.14
B) Instructional Tapes	6.79
C) Stereo	6.29
D) Video Games	5.71
10) LOGO	
A) Scotch	9.00
B) Wine Cooler	5.79 ^C
C) Bottled Water	2.50 ^B
D) Beer Mug	8.00
11) COLOR	
A) Lollipops	8.07 ^{BCD}
B) Oatmeal	2.50 ^{AC}
C) Toasted Pastry	5.57 ^{ABD}
D) Waffles	3.07 ^{AC}
12) MOUNTAIN SPRING	
A) Scotch	2.00 ^C
B) Wine Cooler	3.43 ^C
C) Bottled Water	8.86 ^{ABD}
D) Beer Mug	2.57 ^C
13) ELECTRONICS	
A) Cellular Phone	8.43 ^B
B) Instructional Tapes	3.71 ^{ACD}
C) Stereo	8.86 ^B
D) Video Games	7.86 ^B

TABLE III-3 -- continued

14) HIGH ALCOHOL CONTENT	
A) Scotch	8.43 ^{BCD}
B) Wine Cooler	7.21 ^{ACD}
C) Bottled Water	1.00 ^{ABD}
D) Beer Mug	3.71 ^{ABC}
15) HEALTHY GRAINS	
A) Lollipops	1.07 ^{BCD}
B) Oatmeal	8.07 ^{ACD}
C) Toasted Pastry	3.43 ^{ABD}
D) Waffles	5.57 ^{ABC}
16) KIDS	
A) Video Games	8.79 ^{BCEFGH}
B) Waffles	6.64 ^{ADEFGH}
C) Stereo	5.71 ^{ADEFH}
D) Lollipops	8.71 ^{BCEFGH}
E) Toasted Pastry	8.00 ^{ABCD FGH}
F) Instructional Tapes	2.29 ^{ABCEG}
G) Oatmeal	4.36 ^{ABDEFH}
H) Cellular Phone	1.00 ^{ACCEG}

Means on 9 Point Scale (n = 14). Superscripts indicate ratings of contrast categories that are significant at the 0.05 level.

feels that this is obvious. On the other hand, the rating scale measure may introduce demand by cuing associations that were not salient in the brand concept.

To control for potential demand effects, subjects rated how strongly they associated an attribute with a brand in a comparative manner. Thus, whereas brand was a between-subjects factor for the free association task, brand was a within-subject factor for this rating task.

Twenty-four subjects participated in this test. For each association, subjects rated how strongly it was associated with four brands in a product category: the focal brand, the

comparison brand, and two filler brands. The instructions to subjects and a sample of the stimulus material are described in Appendix IF.

The mean ratings for brand association strength are given in Table III-4. The difference in association strength for the focal and comparative brand was analyzed by a t test. All the focal brand associations used in the experiment were confirmed by the rating task methodology except for the beer category. Coors and Budweiser were rated equally for the association of light taste. (Subjects seemed confused on how to interpret rating questions in the beer category, as three subjects put question marks and skipped these questions). In general, however, the results of the rating scale measure of brand association strength strongly converged with the findings of the free association task in Pretest 2.

TABLE III-4

MANIPULATION CHECK 2
MEAN BRAND RATINGS FOR ASSOCIATION STRENGTH

1) SKIN SOFTENING

A) Irish Spring	1.58
B) Ivory	6.79
C) Dial	2.67
D) Camay	7.96

Difference between A and D, $t(1,23) = 12.96$, $p < 0.0001$

2) TECHNOLOGICAL

A) IBM	8.58
B) Compaq	5.13
C) Apple	7.13
D) Hewlett-Packard	6.79

Difference between A and C, $t(1,23) = 1.94$, $p < .06$

TABLE III-4 -- continued

3) BLAND

A) Froot Loops	1.54
B) Wheaties	6.50
C) Cheerios	5.25
D) Grape Nuts	6.75

Difference between A and C, $t(1,23) = 6.37$, $p < 0.001$

4) LIGHT TASTE

A) Michelob	5.81
B) Lowenbrau	2.76
C) Coors	5.95
D) Budweiser	5.24

Difference between C and D, $t(1,20) = 1.15$, $p > 0.2641$

5) BREATH FRESHENING

A) Crest	6.00
B) Close-Up	8.50
C) Ultra Brite	3.79
D) Colgate	5.75

Difference between A and B, $t(1,23) = 5.23$, $p < 0.0001$

6) FLAVORS

A) Froot Loops	8.75
B) Wheaties	2.08
C) Cheerios	3.38
D) Grape Nuts	2.25

Difference between A and C, $t(1,23) = 9.12$, $p < 0.001$

7) MOUNTAIN SPRINGS

A) Michelob	3.45
B) Lowenbrau	1.90
C) Coors	7.05
D) Budweiser	3.80

Difference between C and D, $t(1,19) = 3.41$, $p < 0.004$

8) KIDS

A) Froot Loops	8.83
B) Wheaties	2.13
C) Cheerios	5.79
D) Grape Nuts	1.42

Difference between A and C, $t(1,23) = 4.99$, $p < 0.001$

TABLE III-4 -- continued

9) SCENT

A) Irish Spring	8.79
B) Ivory	3.04
C) Dial	5.63
D) Camay	3.88

Difference between A and D, $t(1,23) = 8.17$, $p < 0.001$

10) USER FRIENDLY

A) IBM	6.43
B) Compaq	4.17
C) Apple	8.00
D) Hewlett-Packard	3.35

Difference between A and C, $t(1,22) = 2.42$, $p > 0.0242$

11) DENTAL PROTECTION

A) Crest	8.79
B) Close-Up	4.33
C) Ultra Brite	3.58
D) Colgate	7.92

Difference between A and B, $t(1,23) = 9.26$, $p < 0.001$

12) LOGO

A) Michelob	5.77
B) Lowenbrau	3.36
C) Coors	5.50
D) Budweiser	7.55

Difference between C and D, $t(1,21) = 3.20$, $p > 0.0043$

13) HEALTHY

A) Froot Loops	1.92
B) Wheaties	8.13
C) Cheerios	5.83
D) Grape Nuts	8.38

Difference between A and C, $t(1,23) = 7.47$, $p < 0.001$

14) KIDS

A) IBM	3.25
B) Compaq	2.20
C) Apple	7.00
D) Hewlett-Packard	1.92

Difference between A and C, $t(1,23) = 5.99$, $p < 0.001$

TABLE III-4 -- continued

15) HIGH ALCOHOL CONTENT

A) Michelob	4.95
B) Lowenbrau	6.40
C) Coors	4.30
D) Budweiser	5.00

Difference between C and D, $t(1,19) = 1.45$, $p > 0.1625$

16) SWEET

A) Froot Loops	8.75
B) Wheaties	2.13
C) Cheerios	3.17
D) Grape Nuts	1.96

Difference between A and C, $t(1,23) = 10.79$, $p < 0.0001$

Means on a 9 point scale (N=24)

CHAPTER IV
EXPERIMENT 1: AN EMPIRICAL INVESTIGATION OF THE ROLE OF
BRAND-SPECIFIC ASSOCIATIONS AND BRAND AFFECT ON THE
EVALUATION OF BRAND EXTENSIONS

Overview

The reasoning developed in Chapter II concerned the role of brand-specific associations and brand affect in the evaluation of brand extensions. It was argued that brand associations were an important component of brand equity. Two different types of brand associations are the liking for that brand and the specific beliefs that differentiate the brand in its product category. Because both types of brand associations are likely to be important when a brand is extended to a new product category, it was hypothesized that there would be a brand-specific association X brand affect interaction. Although not predicted, it was tentatively proposed that if a brand's specific associations are judged by the consumer to be beneficial for the extended product category, the brand may have an advantage over its original competitors when extending to that new product category, even if the competitors have higher brand affect. This chapter details the methodology employed in Experiment 1 and the analyses and results of Experiment 1.

Experimental Design

The overall design is a 2 (Brand) X 2 (Extension Relevance) X 5 (Product Category) X 2 (Extension Category Set) mixed design. Brand name was a between-subjects factor of focal or comparison brand (e.g. Close-Up vs. Crest). The second factor, extension relevance, varied whether the focal or comparison brand's association was relevant in the extension category (e.g. The breath mint extension category valued breath-freshening, whereas the toothbrush extension category valued dental protection). It was treated as a within-subject factor. The last two factors of parent product category and set were replicates included to increase the generalizability of the results. Pretesting showed that five parent product categories were eligible to test the hypothesis (i.e., toothpaste, soap, cereal, computer, and beer). All five were included as a within-subject factor. Extension category set was a between-subjects factor that replicated the extension product categories designated as matching the association of either the focal or comparison brand (e.g. The association of breath freshening was relevant in the extension categories of breath mint and mouthwash). Thus, this factor provided an opportunity to demonstrate that the predicted interaction was due to a match between the focal brand's associations and the relevance of that association in the extension product category, rather than some other aspect of the extension product category.

The entire stimulus set for this experiment is shown in Appendix IIA-1. Each subject evaluated two brand extensions for each of the five product categories. For one brand in each product category, subjects judged two extensions, one that was consistent with the focal brand's association and one that was consistent with the comparison brand's association. The order of association relevance in the extension category was counterbalanced as was the order of product categories. One additional product category in which both extensions were appropriate for the brand was included as filler to reduce potential hypothesis guessing. The order of product category sequences is described in Appendix IIA-2. In total, subjects evaluated twelve potential extensions.

Experimental Procedure

Seventy-six volunteer subjects enrolled in the Introductory Marketing course at the University of Florida participated in this experiment. Subjects received extra credit for their participation. The subjects were run in groups of 10-12 participants. The stimulus materials were contained in a booklet with brands and categories counterbalanced across subjects and within experimental sessions. The introductory page defined brand extensions and gave examples of existing brand extensions. Subjects were told that the experimenter was interested in reactions to some potential brand extensions (see Appendix IIB-1). To

familiarize subjects with the procedure, they completed a practice set of questions about a potential extension for Ford. Subjects were then paced through the remainder of the study by the experimenter.

For each extension, subjects were allotted one minute to answer three items (see Appendix IIB-2). The first two items on the questionnaire were nine point scales that measured extension evaluations. The first scale assessed overall evaluation of the potential brand extension relative to existing brands in the extension product category and ranged from one of the worst (1) to one of the best (9). The second scale assessed preference for the potential brand extension and ranged from dislike (1) to like (9). The third item concerned cognitive responses to the potential brand extension. Subjects were asked to list their thoughts about the potential brand extension.

For each product category, subjects answered the three items for two potential extensions for the same brand. Afterward, subjects answered three additional questions about the brand name. Specifically, they were asked to rate their preference, familiarity, and image perception regarding the brand name. The first item served as a manipulation check of the affect ratings from the pretest. The last two items served as covariates in the analyses. The three items measuring perceptions of the brand name are presented in Appendix IIB-3.

Finally, subjects completed a preference ranking task. Subjects were asked to rank order their preference for three brands in an extension product category. One brand was the existing leader of the product category, and the other two were potential extensions by the focal and comparison brand. Recall that each focal and comparison brand had two extensions that valued its association but not its counterpart for a total of 24 possible extensions across the six product categories. Whereas brand name was a between-subjects factor in the main design, the ranking test replicated the design with brand name as a within-subject factor forcing subjects to choose whether they preferred the focal or comparison brand for each extension. Subjects ordered their preferences for a set of twelve extensions (one designated focal and comparison extension from each product category), but not the same set that they evaluated earlier. The instructions for rank ordering preferences are described Appendix IIB-4. The entire procedure took approximately forty-five minutes to complete. An outline of the procedure for each subject is presented in Appendix IIA-3.

Results

The manipulation check of brand affect yielded results that were consistent with those found in the pretest. Across the five product categories, the brands that were initially identified as focal brands were rated lower in brand preference ($M = 6.16$) than the brands that were identified as

comparison brands ($M = 6.86$), and this difference was significant $F(1,375) = 7.42$, $p < .001$. Further support for the affect manipulation was provided by the fact that for each product category, the focal brand was directionally less preferred than the comparison brand. However, this result was only significant for two of the five product categories. This inconsistency with Pretest 3 is likely to have been caused by methodological differences. Recall that subjects here gave affect ratings for one brand in each category after evaluating two potential extensions for that brand. In contrast, subjects in Pretest 3 gave affect ratings for four brands from each product category. Apparently, rating brand preference without the context of other brands in its category increased the standard error of the test relative to the pretest in which several brands within a product category were rated. These results are presented in Table IV-1.

TABLE IV-1

MEAN PREFERENCE RATINGS FOR BRANDS

PRODUCT CATEGORY	FOCAL BRAND		COMPARISON BRAND	
TOOTHPASTE*	Close-Up	6.42	Crest	7.89
CEREAL	Cheerios	5.74	Froot Loops	6.32
SOAP	Camay	5.25	Irish Spring	5.46
COMPUTER*	Apple	7.18	IBM	8.43
BEER	Coors	6.14	Budweiser	6.30

*Indicates difference significant at $p < .05$.

Evaluation Judgments of Brand Extensions

The critical test is to examine the Brand X Extension Relevance interaction. This corresponds to a test of the brand affect X brand-specific association interaction. A secondary test involves the relative preference ordering of the focal brand and the comparison brand in an extension category in which the focal brand's specific association is relevant.

Dependent Measures. Two measures of brand extension preference were collected: a measure of comparative preference with existing brands in that category and a measure of general liking. These two evaluative ratings of potential brand extensions were highly correlated across all conditions (Pearson $r = 0.84$) and were averaged to produce the single dependent measure used in the analyses.

Analysis. For purposes of analysis, the design was treated as a hierarchical nested design. A factor is nested when the levels of that factor are uniquely defined at the levels of another factor (Keppel, 1982). Therefore, the Brand factor is nested in Product Category because each set of focal and comparison brands is specific to its original product category. Likewise, Extension Relevance and Set are also treated as nested in Product Category. The data were analyzed in a mixed ANOVA design with between-subjects factors of Brand and Set and within-subject factors of Extension Relevance and Product Category. The results are first presented treating all factors as fixed. Therefore, the statistical generalizations

from these results are limited to effects observed with the specific stimuli used in this experiment. The results are reported in Table IV-2 to Table IV-4.

Hypothesis testing. The hypothesis predicted a Brand X Extension Relevance interaction. The analysis of variance in Table VI-5 clearly supports this prediction. The Brand X Extension Relevance interaction was significant, $F(4,218) = 4.48$, $p < .002$, and produced a cross-over pattern. In extension product categories where the focal brand-specific association was relevant, the focal brand was more preferred as an extension ($\bar{M} = 6.15$) than was the comparison brand ($\bar{M} = 5.04$). On the other hand, in extension product categories where the focal brand-specific association was not relevant, the comparison brand ($\bar{M} = 5.73$) retained its preference advantage over the focal brand ($\bar{M} = 4.94$). The strongest test of the interaction is the former effect of brand at the designated focal extension category. Although the means indicate the preference ordering of focal and comparison brands reversing in extension categories that valued the focal brand's association, complications from the nested design did not permit a statistical test across categories. However, this result is confirmed by the individual category analyses reported later. Thus, the brand-specific association X brand affect interaction was significant and indicated preference reversals. Even though the focal brand was less preferred in its original product category than the comparison brand, its

brand-specific association provided the advantage for it to be more preferred in an extension category where its association was valued.

TABLE IV-2

ANALYSIS OF VARIANCE
TESTS OF HYPOTHESES FOR BETWEEN SUBJECTS EFFECTS

SOURCE	TYPE IV SS	DF	F VALUE	P > F
BRAND(CAT)	13.1181	4	0.67	0.6120
SET(CAT)	6.2112	4	0.32	0.8656
BRAND*SET(CAT)	21.5388	4	1.10	0.3558
SUB(BRAND SET)	1068.5666	219		

TABLE IV-3

ANALYSIS OF VARIANCE
TESTS OF HYPOTHESES FOR WITHIN SUBJECTS EFFECTS

SOURCE	TYPE IV SS	DF	F VALUE	P > F
EXTEN(CAT)	65.6031	4	7.22	0.0001
EXTEN*BRAND(CAT)	40.7273	4	4.48	0.0017
EXTEN*SET(CAT)	91.6723	4	10.09	0.0001
EXTEN*BRAND*SET(CAT)	17.1385	4	1.89	0.1139
EXTEN*SUB(BRAND SET)	495.1689	218		
CAT	40.8232	4	2.83	0.0270
CAT*SUB(BRAND SET)	497.6768	138		

TABLE IV-4

LEAST SQUARE MEANS USING COMBINED DEPENDENT MEASURE

<u>TOOTHPASTE</u>			BRAND 1 (Less Prefer)	BRAND 2 (More Prefer)
			<u>Close-Up</u>	<u>Crest</u>
SET 1	EXT 1	Mouthwash	6.80	7.36
	EXT 2	Dental Floss	6.20	6.69
SET 2	EXT 1	Breath Mint	7.58	6.17
	EXT 2	Toothbrush	5.95	6.81
 <u>CEREAL</u>				
			<u>Cheerios</u>	<u>FrootLoops</u>
SET 1	EXT 1	Oatmeal	6.23	3.48
	EXT 2	Toasted Pastry	5.40	4.95
SET 2	EXT 1	Waffles	5.36	3.96
	EXT 2	Lollipops	4.08	6.54
 <u>SOAP</u>				
			<u>Camay</u>	<u>IrishSpring</u>
SET 1	EXT 1	Moisturizer	6.53	4.53
	EXT 2	Deodorant	5.03	5.42
SET 2	EXT 1	Cleansing Cream	6.18	5.29
	EXT 2	Cologne	3.77	3.54
 <u>COMPUTER</u>				
			<u>Apple</u>	<u>IBM</u>
SET 1	EXT 1	Video Games	6.45	6.08
	EXT 2	Stereo	4.82	4.66
SET 2	EXT 1	Instructional Tape	6.85	7.34
	EXT 2	Cellular Phone	6.21	7.22
 <u>BEER</u>				
			<u>Coors</u>	<u>Budweiser</u>
SET 1	EXT 1	Wine Coolers	5.67	3.29
	EXT 2	Beer Mug	6.83	6.43
SET 2	EXT 1	Bottled Water	5.91	3.03
	EXT 2	Scotch	3.68	4.71

* Extension 1 was chosen so that Brand 1's association was relevant, whereas Extension 2 was chosen so that Brand 2's association was relevant. Within each parent product category, Set was a replicate of the match of brand associations to extension categories.

The results reported in Table IV-2 and Table IV-3 utilized Type IV Sum of Squares because this reduced the CPU power needed to fully test this nested design using a general linear model. The model accounted for 90% of the variance in the evaluation of brand extensions, but this analysis did not provide tests of the covariates. In more limited model specifications, tests of the covariates repeatedly resulted in the same outcome, the familiarity covariate was marginally significant, $F(1,219) = 3.70$, $p < .06$, and the image covariate was not significant, $F(1,219) = 2.17$, $p > .14$.

One consequence of a nested design is that tests for interaction effects between a nested factor and the factor within which it is nested are not permissible. Thus, a test for the three-way interaction of Brand X Extension Relevance X Product Category was not possible. The significant Extension Relevance X Set interaction, $F(4,218)$, $p < .001$ suggests that the replicates of focal and comparison extension categories were not identical in their manipulation strength of association relevance. This is not surprising and does not diminish the implications of the results. Moreover, the critical result of interest did not interact with Set; Brand X Extension Relevance X Set interaction was not significant, $F(4,218) = 1.87$, $p > .06$.

To further examine the effect of brand-specific associations and brand affect, analysis of variance tests were performed for each product category. The results show that the

Brand X Extension Relevance interaction was significant in four of the five product categories and eight of the ten focal extension categories exhibited preference reversals.

In the toothpaste product category, the Brand X Extension Relevance was significant, $F(1,65) = 5.99$, $p < .02$, but so was its higher order interaction, Brand X Extension Relevance X Set, $F(1,65) = 8.07$, $p < .001$. Therefore, simple main effects tests for brand in the focal extension category in each set were performed. In the first set, Close-Up was not preferred to Crest in the mouthwash product category and although the means were in the wrong direction, they were not significant ($\bar{M} = 6.80$ vs. $\bar{M} = 7.36$; $F(1,35) = 0.88$, $p > .35$). Cognitive responses revealed that this result was due to different perceptions of the mouthwash category by subjects in each brand condition. Subjects who evaluated Close-Up mouthwash perceived it as a minty breath freshener, whereas subjects who rated Crest mouthwash perceived it as an anti-plaque dental rinse. In the second set, Close-Up ($\bar{M} = 7.58$) was significantly preferred over Crest ($\bar{M} = 6.17$) as an extension in the breath mint product category, $F(1,38) = 4.63$, $p < .04$.

In the cereal product category, the Brand X Extension Relevance interaction was also significant, $F(1,66) = 28.24$, $p < .001$. Cheerios was preferred to Froot Loops in both the focal extension categories of oatmeal ($F(1,37) = 23.11$, $p < .001$) and waffles ($F(1,37) = 2.99$, $p < .10$).

In the soap product category, the Brand X Extension Relevance interaction was significant, $F(1,64) = 16.95$, $p < .001$. Although there was a significant three-way interaction of Brand X Extension Relevance X Set, $F(1,64) = 4.45$, $p < .04$, it was due to an unexpected reaction to the comparison brand in the comparison extension category of Set 2. That is, the comparison brand of Irish Spring ($M = 3.54$) was equally preferred to the focal brand of Camay ($M = 3.77$) in the comparison extension of cologne, $F(1,36) < 1$. Cognitive responses revealed that although Irish Spring possessed the important attribute of scent, it was evaluated negatively on this dimension as being overpowering. The focal brand, Camay, was more preferred in both of the focal extension categories of moisturizer, $F(1,37) = 8.65$, $p < .01$, and cleansing cream, $F(1,35) = 3.20$, $p < .08$.

Recall that the soap category was specifically chosen to provide further insights into the role of affect in brand extensions. Although Irish Spring was preferred to Camay in its original category at the aggregate level, this preference dominance was found only with males; females were ambivalent. If the evaluations of the potential extension were moderated by brand affect, one would expect different evaluations of the extensions by gender. The results show that both genders reacted almost identically to potential extensions. The Brand X Extension Relevance X Gender interaction was not significant, $F(2,63) = 0.56$, $p < .58$. For both males and

females, the Brand X Extension Relevance interaction was significant and in the same cross-over pattern, males ($F(1,27) = 12.24, p < .01$) and females ($F(1,27) = 5.32, p < .03$). Thus, regardless of their original preferences, both genders equally recognized the relevance of the focal brand's association in the focal extension category and made their extension evaluations accordingly.

In the computer product category, the Brand X Extension Relevance interaction was not significant, $F(1,65) = 0.34, p > .56$. The primary reason appeared to be the focal extension of instructional tapes in which the comparison brand, IBM ($M = 7.34$) was unexpectedly more preferred than the focal brand, Apple ($M = 6.85$). Nonetheless, this difference was not significant, $F(1,34) = 0.15, p > .70$. Cognitive responses showed that subjects believed IBM lacked ease of use and therefore an instructional tape extension would be desirable. Apparently, subjects evaluated extensions based on two different aspects of relevance, one in which the brand's association was relevant in the extension category and one in which the extension category would be a relevant addition to the core product. This suggests that a brand may benefit from an extension by adding new value to the core brand through the reverse transfer of a new association. In the other focal extension of video games, Apple ($M = 6.45$) was more preferred than IBM ($M = 6.08$), although this was not significant, $F(1,34) = 0.11, p > .74$.

Finally, in the beer product category, the Brand X Extension interaction was significant, $F(1,66) = 25.39$, $p < .001$. The focal brand of Coors was more preferred than Budweiser in both the focal extension categories of wine cooler ($F(1,37) = 17.62$, $p < .001$) and bottled water ($F(1,37) = 18.74$, $p < .001$). Thus, the category replicates provide strong evidence of a brand-specific association X brand affect interaction. They also indicate that brand-specific associations seem to dominate brand affect in extension evaluations.

ANOVA effects treating brands, extensions, and product categories as random factors. To this point, the analyses have treated Brand, Extension Relevance, and Product Categories as fixed factors. Thus, statistical generalizations are limited to treatment effects observed with the specific conditions of this experiment. To increase generalizability, these factors were analyzed as random factors.

The usual error terms cannot be used to estimate random effects. The appropriate test is a F ratio in which the denominator is a combination of terms that contribute to the mean squares of the effect (Keppel, 1982). If an effect in the model matches the variation in the treatment effect, it serves as the error term and is distributed as a normal F ratio. If no single effect matches, quasi F ratios are used in which the denominator is a combination of effects that together provide an appropriate test of the treatment effect. Quasi F ratios

have degrees of freedom that are adjusted according to Satterthwaite's (1946) method (see in Appendix IIC).

The results are presented in Table IV-5 and Table IV-6. The Brand X Extension Relevance interaction is not significant with random factors, $F(4,4) = 2.38$, $p > .21$, although the three-way Brand X Extension Relevance X Set approaches significance, $F(4,218) = 1.89$, $p < .12$. Thus, the hypothesis is statistically supported with the treatment brands and product categories used in this experiment, but it is not generalizable to all brands and product categories.

Table IV-5

ANALYSIS OF VARIANCE FOR RANDOM EFFECTS
NORMAL F RATIOS

SOURCE	TYPE IV SS	DF	DF _e	F VALUE	P > F
EXTEN*BRAND(CAT)	40.7273	4	4	2.38	0.2112
EXTEN*SET(CAT)	91.6723	4	4	5.35	0.0666
EXTEN*BRAND*SET	4.2846	4	218	1.89	0.1139

Table IV-6

ANALYSIS OF VARIANCE FOR RANDOM EFFECTS
QUASI F RATIOS

SOURCE	TYPE IV SS	DF	DF _e	F VALUE	P > F
EXTEN(CAT)	65.6031	4	5	0.57	0.2500
BRAND(CAT)	13.1181	4	3	0.29	0.2500
CAT	40.8232	4	-1	N/A	N/A
SET(CAT)	6.2112	4	4	0.06	0.2500

Preference Ranking

This task specifically examined the possibility of brand preference reversal between the original and extended product category using a rank order dependent measure in which Brand was a within-subject factor. A forced choice measure was constructed from these ranks based on which brand received the higher ranking. Implicitly, subjects chose whether they preferred the focal or comparison brand in extension categories. These forced choice results are presented in Tables IV-7 and IV-8. Chi square analyses were performed for each extension category. These results show that in six of the ten focal extension categories the focal brand was selected over the comparison brand as predicted at the 0.02 level. In the other four focal extension categories, there was no difference in brand choice, $\chi^2 < 0.50$. These instances of equal preference in the focal extension category still provide evidence of the effect of brand-specific associations because the original preference dominance of the comparison brand is erased. A less preferred brand was able to be equally or more preferred than its comparison brand in an extension category that valued its association.

These forced choice results parallel the simple effect tests of the evaluative rating task reported earlier, and the latter most closely resembles the decision task for an extension judgment. A consumer evaluates a brand extension in isolation or in comparison to existing members of the

TABLE IV-7

FORCED CHOICE RESULTS
NUMBER OF SUBJECTS CHOOSING FOCAL OR COMPARISON BRAND
IN EXTENSION CATEGORY

			BRAND 1	BRAND 2
<u>TOOTHPASTE</u>			<u>Close-Up</u>	<u>Crest</u>
SET 1	EXT 1	Mouthwash	17	18
	EXT 2	Dental Floss	8	28
SET 2	EXT 1	Breath Mint	32	8
	EXT 2	Toothbrush	7	33
<u>CEREAL</u>			<u>Cheerios</u>	<u>Froot Loops</u>
SET 1	EXT 1	Oatmeal	25	10
	EXT 2	Toasted Pastry	14	22
SET 2	EXT 1	Waffles	36	4
	EXT 2	Lollipops	1	21
<u>SOAP</u>			<u>Camay</u>	<u>Irish Spring</u>
SET 1	EXT 1	Moisturizer	28	8
	EXT 2	Deodorant	9	26
SET 2	EXT 1	Cleansing Cream	29	11
	EXT 2	Cologne	11	29
<u>COMPUTER</u>			<u>Apple</u>	<u>IBM</u>
SET 1	EXT 1	Video Games	16	19
	EXT 2	Stereo	5	30
SET 2	EXT 1	Instructional Tape	19	21
	EXT 2	Cellular Phone	3	37
<u>BEER</u>			<u>Coors</u>	<u>Budweiser</u>
SET 1	EXT 1	Wine Cooler	19	15
	EXT 2	Beer Mug	14	25
SET 2	EXT 1	Bottled Water	29	10
	EXT 2	Scotch	15	21

TABLE IV-8

CHI SQUARE ANALYSIS OF FORCED CHOICE RESULTS

EXTENSION CATEGORY	N	CHI SQUARE	P > X ²
TOOTHPASTE			
Mouthwash	34	0.03	0.25
Dental Floss	35	11.11	0.01
Breath Mint	39	14.40	0.01
Toothbrush	39	16.90	0.01
CEREAL			
Oatmeal	34	6.43	0.02
Toasted Pastry	35	1.78	0.25
Waffles	39	25.60	0.01
Lollipops	22	18.18	0.01
SOAP			
Moisturizer	35	11.11	0.01
Deodorant	34	8.26	0.01
Cleanse Cream	39	8.10	0.01
Cologne	39	8.10	0.01
COMPUTER			
Video Games	34	0.26	0.25
Stereo	34	17.86	0.01
Instruct Tape	39	0.10	0.25
Cellular Phone	39	28.90	0.01
BEER			
Wine Cooler	35	0.47	0.25
Beer Mug	38	3.10	0.10
Bottled Water	38	9.26	0.01
Scotch	35	1.00	0.25

extension category, not in comparison to hypothetical extensions from the brand's current competitors.

In summary, the evaluative rating results strongly support the hypothesis of a Brand X Extension Relevance interaction. The overall interaction was significant and the interaction was significant in four of the five replicate

categories. Moreover, in the ten extension categories that valued the less preferred brand's association, this brand was more preferred than a comparison brand in seven extensions and equally preferred in three extensions. These three apparent exceptions to the general hypothesis were easily explained by cognitive responses that indicated the construct of extension relevance might be expanded to include satisfying a benefit desired in the core product. The preference ranking task displayed a similar pattern of results. Overall, the results consistently show strong brand effects such that a brand possessing an association valued in an extension category is more preferred than its original competitors when extending to that new category, even if its competitors have higher brand affect.

CHAPTER V
EXPERIMENT 2: AN EMPIRICAL INVESTIGATION OF THE ROLE OF
BRAND-SPECIFIC ASSOCIATIONS AND PRODUCT CATEGORY SIMILARITY ON
THE EVALUATION OF BRAND EXTENSIONS

Overview

Prior research has supported the commonsense notion that product category similarity plays a role in brand extension. That is, a brand extends more easily when the new category is similar to the original category than when it is dissimilar--all things equal (Aaker and Keller, 1990; Boush and Loken, 1991). Recently, however, one paper has argued that this relationship may be moderated by the identity of the brand. Specifically, Park et al. (1991) compared the extendibility of brands originating from the same product category but differing along a prestige-functional continuum. Their results suggest that, although the basic similarity relationship holds, prestige brands are influenced less by product category similarity than are functional brands.

This study represents an important step because it recognizes the influence of the brand in brand extension. Unlike previous research, it employed real brands with unique identities and did not confound brand identity with product class. However, it may be limited in its ability to capture

the unique value of a brand name for two reasons. First, the distinction between functionality and prestige is too broad, inasmuch as each concept may refer to a diverse set of meanings. For example, among automobiles, functionality may be reflected in reliability (e.g., Honda), energy efficiency (e.g., Geo), safety (e.g., Chrysler), and durability (e.g., Ford). Similarly, a brand may be prestigious for a variety of reasons including its expensive price, superior product quality, or exclusivity of consumers (Park, Jaworski, and MacInnis, 1986). Indeed, it could be argued that prestige and function orientations are subcategories within a product class --more specific than the category but less specific than individual brands. For example, experiment 1 showed that consumers reacted very differently to extensions from two functional brands of cereal such as Froot Loops and Cheerios. This problem is exacerbated in the Park et al. (1991) study by the use of only a single prestige brand (Rolex) and a single functional brand (Timex), resulting in a confound of sorts between brand and subcategory.

A second limitation of the study involves its focus and the consequent managerial implications of its results. Park et al. (1991) were interested primarily in examining the joint effects of product class similarity and brand concept consistency on extendibility. Their results indicate that the best scenario for successful extension involves extending a brand into a similar and consistent category (e.g., functional

brand into a similar functional category). We suspect that most managers would concur with this finding. Functional brands may lack the glamour needed to succeed in prestige product classes and, all things equal, similar product categories will produce better results than dissimilar categories -- as suggested by most research in this area. Once the incongruity between prestige and functionality is recognized, however, a critical question for managers involves the extent to which their opportunities are limited by category similarity. The central theme of the present research is that associations specific to the brand are a primary determinant of extendibility.

In the present context, this suggests that an appropriate brand-specific association may compensate for lack of product class similarity and, moreover, extensions that are not consistent with the brand's identity may be ill-conceived, regardless of category similarity. In experiment 2 we directly examine the differential leverage provided by product category similarity and brand-specific associations when extending to a brand. Following the logic of experiment 1, it is predicted that there will be a brand-specific association X product category similarity interaction. Moreover, it is hypothesized that an extended brand will be more favorably evaluated in a dissimilar category in which its association is valued than in a similar category in which its association is not relevant. That is, brand effects are predicted to dominate the effects

of category similarity when the brand association is strong and valued in the extension category.

We focus on functional brands because the findings of Park et al. (1991) imply that brand effects and extension opportunities may be limited for functional brands. Additionally, this work extends the previous research by showing that brand associations are not limited to the generic categories of prestige-oriented or functional-oriented, but can be any association that is strongly linked to the brand.

Stimulus Materials

One additional pretest was necessary to develop stimulus materials for this experiment. The purpose of the pretest was to identify extension categories that met two requirements. First, extension categories had to vary in their similarity to the original product categories. Second, the specific association of the focal brands needed to be important in their respective dissimilar extension categories. The focal brand for each product category and its corresponding brand-specific association are presented in Appendix IIIA-1.

The product categories that were identified as having brand-specific associations in Pretest 2 were reexamined to see if they were eligible. An initial screening for a range of extension similarity was performed by examining subject-generated extensions. In addition to those products tested in Experiment 1, extensions were generated for the other product

categories by ten subjects. Seven product categories were selected for further pretesting: toothpaste, cereal, gum, soap, gym shoes, watch, and automobile tires. To provide a strong test of brand effects, an effort was made to include durable categories. Manufacturing capabilities are likely to be prominent in the evaluation of durable goods (Aaker and Keller, 1990) and consequently product level effects should be most likely to occur for these extensions. Although several of the durable brands had previously been extended, they were strongly associated with one product category.

Thirty four subjects participated in this pretest. Subjects first indicated their overall similarity ratings for 92 product category pairs on a nine point scale ranging from not at all similar to very similar. The seven original product categories were paired with seven or eight potential extension categories and the forty remaining product pairs related to other research. (see Appendix IIIA-2). To further examine the similarity construct, subjects then rated the 52 original and extension category pairs on the same nine point scale for three more specific types of category similarity: similarity of physical features, similarity of usage situations, and similarity of benefits provided (see Appendix IIIA-3). Finally, subjects rated these product categories for the importance of brand-specific associations on a nine point scale ranging from not at all important (1) to very important (9). The instrument is shown in Appendix IIIA-4.

The results of this pretest are presented in Appendix IIIB. The mean similarity ratings for the four types of similarity are given in Appendix IIIB-1 and the mean association relevance ratings are given in Appendix IIIB-2. The overall similarity rating was highly correlated with the three more specific measures of similarity across product categories (Pearson $r > 0.50$) and was used to determine the selection of stimuli for the similarity manipulation. Selected product categories had extension categories that varied over 3 similarity levels, and the focal brand's association was important in the dissimilar extension category.

Three levels of similarity were identified from pretesting. A line extension is an item from the same product class as the original product. These were highly similar to the originals with mean ratings ranging from 7 to 9. A similar extension is from a different product category that is moderately similar to the original product class with a mean similarity rating ranging from 4 to 6. A dissimilar extension is from a different product category that is highly dissimilar to the original product category with a mean similarity rating ranging from 1 to 3.

Four original product categories had extension categories at all 3 similarity levels. To provide a strong test of the hypothesis, two dissimilar extension categories were desired for each original product category. Because similarity and extension relevance ratings are on different scales, it is not

possible to equate their manipulation strength. Thus, if brand associations dominate similarity in brand extension judgments, it may be due to a stronger manipulation of extension relevance than similarity, not because brand associations have an inherently stronger effect than similarity. Therefore, only highly dissimilar extension categories were chosen and more than one dissimilar extension was tested from each product category. These extension categories and their mean similarity ratings are shown in Table V-1. The results show that for each original product category, the line extension, similar extension, and dissimilar extensions differed in their similarity ratings with p values less than 0.05. Furthermore, the two dissimilar extensions for each category did not differ in their similarity ratings.

The second requirement was that the focal brand's specific association be more important in the dissimilar extension categories than in the similar and line extension categories. The importance ratings of associations in these extension categories are presented in Table V-2. For each product category, the two dissimilar extensions had higher association relevance ratings than their respective similar extensions, $t(1,28)$, $p < .05$. However, the line extension only differed from the two dissimilar extensions in the cereal ($\underline{t}(1,28) = 7.04$, $\underline{p} < .0001$) and soap product category ($\underline{t}(1,28) = 7.71$, $\underline{p} < .0001$). Because very similar product categories are likely to overlap on important attributes, it was

recognized that the focal brand's specific association would often be valued in line extensions. Therefore, we decided to focus the hypothesis testing on similar versus dissimilar extensions and use the line versus dissimilar extensions as a strong test of similarity in brand extensions.

TABLE V-1

MEAN SIMILARITY RATINGS BY TYPE OF EXTENSION CATEGORY

ORIGINAL CATEGORY	TYPE OF EXTENSION CATEGORY			
	LINE EXTEN (A)	SIMILAR (B)	DISSIM 1 (C)	DISSIM 2 (D)
CEREAL	Hot Cereal 7.97 ^{BCD}	Waffles 4.59 ^{ACD}	Lollipop 1.44 ^{AB}	Popsicle 1.59 ^{AB}
SOAP	Liquid Hand Soap 8.21 ^{BCD}	BubbleBath 5.65 ^{ACD}	Shoe Deodorize 1.45 ^{AB}	Room Freshener 2.15 ^{AB}
GYM SHOE	Ladies Canvas Gyms 7.97 ^{BCD}	Wingtips 3.64 ^{ACD}	Pain Rub 1.82 ^{AB}	Thirst Quencher 2.68 ^{AB}
WATCH	PocketWatch 7.29 ^{BCD}	Bracelet 4.62 ^{ACD}	Alarm System 2.21 ^{AB}	Outdoor Thermomet 1.88 ^{AB}

* Letter denotes a t test $t(1,28)$ difference of $p < .05$.

In Experiment 1, the comparison brands either were representative of the focal-brand category or had their own brand-specific associations in that category. For exploratory purposes, two types of comparison brands were selected here to examine this distinction. For the cereal, soap, and gym shoe product categories, the comparison brands were chosen so that

Table V-2

MEAN ASSOCIATION RELEVANCE RATINGS BY
TYPE OF EXTENSION CATEGORY

TYPE OF EXTENSION CATEGORY				
FOCAL BRAND	LINE EXT (A)	SIMILAR (B)	DISSIM 1 (C)	DISSIM 2 (D)
FROOT LOOPS	Hot Cereal	Waffles	Lollipop	Popsicle
Flavor	6.57 ^{CD}	6.67 ^{CD}	8.19 ^{AB}	8.29 ^{AB}
Sweet	4.33 ^{CD}	3.83 ^{CD}	8.92 ^{AB}	8.58 ^{AB}
Kids	5.07 ^{CD}	4.43 ^{CD}	8.86 ^{AB}	8.57 ^{AB}
IRISH SPRING	Liquid Hand Soap	BubbleBath	Shoe Deodorize	Room Freshener
Scent	6.72 ^{BCD}	7.10 ^{ACD}	8.24 ^{ABD}	8.96 ^{ABC}
NIKE	Ladies Canvas Gyms	Wingtips	Pain Rub	Thirst Quencher
Athlete	6.56 ^B	2.00 ^{ACD}	6.93 ^B	7.59 ^B
Sports	7.41 ^B	2.14 ^{ACD}	7.03 ^{BD}	7.59 ^{BC}
TIMEX	PocketWatch	Bracelet	Alarm System	Outdoor Thermomet
Durability	6.90 ^C	6.43 ^C	8.00 ^{AD}	7.10 ^C
Reliability	8.48 ^{BD}	5.28 ^{ACD}	8.72 ^{BD}	6.86 ^{ABC}

* Letter denotes a t test t(1,28) difference of $p < .05$.

they had brand-specific associations that were different from the focal brand. For the watch product category, the comparison brand was representative of its product category and positioned similarly to the focal brand. However, the important association was at least twice as salient for the focal brand as for the comparison brand in the initial free association pretest. In all cases, extension categories were

selected based on their similarity and extension relevance to the focal brand, not the extension relevance of the comparison brand. The focal and comparison brands for each original product category are presented in Appendix IIIB-3.

Experimental Design

The design of this experiment was a 2 (Brand) X 3 (Similarity of Extension Product Category) X 4 (Product Category) X 2 (Dependent Measure) mixed design. Brand name was a within-subject factor of focal vs. comparison brand. Similarity was a within-subjects factor consisting of four levels: line extension, similar extension, and two dissimilar extensions. Product category is a within-subject replicate of extensions from the four original product categories. Finally, to address an important issue in brand extension research, the dependent measure was a between-subjects factor of either an extension preference judgment or an extension fit judgment. Although fit has been argued to be the better measure of brand extension judgments (Park, Milberg, and Lawson, 1990), the construct of fit has not been clearly defined. This factor is included for exploratory purposes.

Each subject evaluated four brand extensions, one for each of the four original product categories. Furthermore, one extension was a line extension, one a similar extension, and two were dissimilar extensions. The selection of extensions and the order in which subjects evaluated them was determined

by a 4 X 4 diagram-balanced Latin square design (see Appendix IIIC-1). The stimuli were then constructed so that an orthogonal 4 X 4 diagram-balanced Latin square for Brand was imposed for each row of the Similarity X Product Category Latin square. Thus, there were four sequences of brand presentation for each row of the Similarity X Product Category Latin Square, or 16 conditions. This stimulus design is shown in Appendix IIIC-2. For each of these conditions, subjects either gave evaluative or fit judgments, resulting in a total of 32 conditions.

Experimental Procedure

One hundred fifty-nine subjects enrolled in the Introductory Marketing course at the University of Florida participated in this experiment. Subjects were run in groups of 10-12 and received one extra credit point for their participation. Subjects first received the same introduction page used in Experiment 1. To familiarize subjects with the task, they completed a practice set of questions about one similar and one dissimilar extension. Subjects were then paced through the study by the experimenter.

For each extension, subjects had one minute to answer three items. For subjects in the Evaluative Measure condition, the first two items on the questionnaire were nine point scale items pertaining to evaluation of the extensions. The first item asked subjects to rate how desirable the extension would

be from undesirable (1) to desirable (9). The second item asked subjects to rate their preference for the potential brand extension from dislike (1) to like (9). The third item solicited cognitive responses and asked subjects for their thoughts about the potential brand extension. These three items are presented in Appendix IIID-1.

For subjects in the Fit Measure condition, the nine point scales addressed the fit of extensions (see Appendix IIID-2). The first item asked subjects to rate the extent to which the extension fit with their knowledge of the brand name and ranged from not at all (1) to very much (9). The second item asked subjects to rate how appropriate the extension was for the brand name and ranged from not appropriate (1) to very appropriate (9). The third item was the cognitive response question described previously.

Subjects answered the three items for four potential extensions from different product categories. They then completed a filler task before answering several questions that served as covariates. These questions measured preference, familiarity, perception of existing extension breadth, image, and prototypicality of various brand names and usage of the extension product category. The instructions and rating scales for the covariates are presented in Appendix IIIE-3. The entire procedure took approximately thirty-five minutes.

Results

The test of the first hypothesis concerned whether there would be a brand-specific association X product category similarity interaction between a dissimilar extension category that valued its association and a similar extension category that did not value its association. Furthermore, it was expected that the focal brand would be more preferred in the dissimilar than the similar extension category.

Dependent Measures

Two measures of extension evaluation and two measures of extension fit were collected. The two evaluative ratings of potential brand extensions were highly correlated across all conditions (Pearson $r = 0.84$) and were averaged to produce a single evaluative dependent measure in the analyses. However, the two fit ratings of brand extensions were only moderately correlated across all conditions (Pearson $r = 0.59$). The first item asked whether the extension fit with the brand name and the second question asked whether the extension was appropriate for the brand name. The appropriateness question usually had a lower rating than the fit question, especially for comparison brands. However, for the overall analyses, these two questions will be averaged to allow a comparison of evaluative and fit judgments in brand extensions.

Analysis

The design was treated as a hierarchical nested design. The Brand factor is nested in Product Category because each

set of focal and comparison brands is specific to its original product category. The Similarity factor was also treated as nested in Product Category because the similarity manipulation of extension categories was relative to each original product category. The data were analyzed in a mixed ANOVA design with between-subjects factors of (a) Dependent Measure, (b) Sequence of brand presentation (Seq X), and (c) Sequence of similarity-product category presentation (Seq Y), within-subject factors of (a) Brand, (b) Similarity of Extension Category, and (c) Original Product Category and the six covariates. The results are presented treating all factors as fixed. Therefore, the statistical generalizations from these results are limited to effects observed with the specific stimuli used in this experiment. Because the two dissimilar extensions from each original product category showed no differential effects of Similarity (Category), $F(4,125) = 1.42$, $p > .24$ or Similarity X Brand (Category) interaction, $F(4,125) = 1.24$, $p > .29$, they were collapsed to form the dissimilar extension condition. The results are reported in Tables V-3 to V-5.

The test of between-subjects factors in Table V-3 showed that the Dependent Measure factor was significant, $F(1,151) = 11.91$, $p < .001$. This factor will be examined further in a later section. The sequence of similarity-product category presentation was marginally significant, $F(3,151) = 2.26$, $p < .10$ suggesting that perhaps subjects' reactions to later

extensions were affected by the similarity of previous brand extensions to their original category.

TABLE V-3

ANALYSIS OF VARIANCE
TEST OF HYPOTHESES FOR BETWEEN SUBJECTS EFFECTS

SOURCE	TYPE III SS	DF	F VALUE	P > F
DEP	61.4496	1	11.91	0.0010
SEQ X	4.6424	3	0.30	0.2500
SEQ Y	34.6643	3	2.26	0.1000
SUB(DEP SEQX SEQY)	773.3003	151		

TABLE V-4

ANALYSIS OF VARIANCE
TESTS OF HYPOTHESES FOR WITHIN SUBJECTS EFFECTS

SOURCE	TYPE III SS	DF	F VALUE	P > F
SIM(CAT)	479.6824	8	14.00	0.0001
CAT	136.4232	3	10.61	0.0001
BRAND(CAT)	11.3213	4	0.66	0.6196
SIM*BRAND(CAT)	134.9102	8	3.94	0.0002
SIM*DEP(CAT)	76.0558	8	2.22	0.0252
CAT*DEP	10.1013	3	0.79	0.5022
BRAND*DEP(CAT)	18.8053	4	1.10	0.3574
SIM*BRAND*DEP(CAT)	40.5584	8	1.18	0.3574
RESIDUAL	1807.9096	422		

TABLE V-5

LEAST SQUARE MEANS COLLAPSING DEPENDENT MEASURES

ORIGINAL CATEGORY		TYPE OF EXTENSION CATEGORY		
		LINE	SIMILAR	DISSIM
CEREAL				
Focal:	Froot Loops	4.48	4.64	5.01
Comparison:	Cheerios	5.92	5.14	2.62
SOAP				
Focal:	Irish Spring	6.75	6.34	5.85
Comparison:	Camay	7.39	6.35	4.06
GYM SHOE				
Focal:	Nike	6.55	2.03	4.76
Comparison:	L.A.Gear	6.97	3.65	4.88
WATCH				
Focal:	Timex	5.92	3.43	6.15
Comparison:	Seiko	5.48	3.47	6.52

The appropriate within-subject error terms for the main effect tests of Similarity, Category, and Brand are confounded by the Latin square design. In the analysis in Table V-4, the main effects tests used the overall variability within subjects as the error term. A more sensitive test would use the variability within subjects for that factor as the error term. Separate analyses were run for each main effect test using the more specific error term. These analyses are shown in Table V-6 to Table V-8. These results are consistent with the former analysis and show a main effect of Similarity, $F(2,464) = 24.82$, $p < .0001$, a main effect of Product Category, $F(3,444) = 11.67$, $p < .0001$, and no main effect of Brand, $F(1,157) = 2.52$, $p > .12$.

The tests of covariates in Table V-9 showed that brand affect was a major influence in brand extension evaluations, $F(1,151) = 37.61$, $p < .0001$, although a brand's prestige image, $F(1,151) = 2.74$, $p < .10$, and extension category usage, $F(1,151) = 2.68$, $p < .10$ also affected extension judgments.

TABLE V-6

ANALYSIS OF VARIANCE
TEST OF MAIN EFFECT OF SIMILARITY

SOURCE	TYPE III SS	DF	F VALUE	P > F
SIM	262.7926	2	24.82	0.0001
SIM*SUB(DEP SQX SQY)	2456.0499	464		

TABLE V-7

ANALYSIS OF VARIANCE
TEST OF MAIN EFFECT OF PRODUCT CATEGORY

SOURCE	TYPE III SS	DF	F VALUE	P > F
CAT	163.5637	3	11.67	0.0001
CAT*SUB(DEP SQX SQY)	2074.1376	444		

TABLE V-8

ANALYSIS OF VARIANCE
TEST OF MAIN EFFECT OF BRAND

SOURCE	TYPE III SS	DF	F VALUE	P > F
BRAND	15.28637	1	2.52	0.1143
BRD*SUB(DEP SQX SQY)	951.7284	157		

TABLE V-9

ANALYSIS OF VARIANCE
TESTS OF COVARIATES

SOURCE	TYPE III SS	DF	F VALUE	P > F
AFFECT	192.6085	1	37.61	0.0001
FAMILIARITY	4.8044	1	0.94	0.2500
BREADTH OF EXTENSION	3.7710	1	0.74	0.2500
IMAGE	14.0496	1	2.74	0.1000
PROTOTYPICAL	0.2069	1	0.04	0.2500
USAGE	13.7384	1	2.68	0.1000
SUB(DEP SEQX SEQY)	773.3003	151		

The covariates of brand familiarity, breadth of previous extension, and prototypicality had little influence on extension judgments, F 's < 1.00.

Hypothesis testing

The hypothesis predicted a Brand X Similarity of Extension Category interaction. The analysis of variance in Table V-4 clearly supports this prediction. The Brand X Similarity interaction was significant, $F(8, 422) = 3.94$, $p < .0001$. However, the critical comparisons are similar versus dissimilar extensions and line versus dissimilar extensions.

Similar versus dissimilar extensions. Interaction comparisons revealed that the Brand X Similarity interaction between similar and dissimilar extensions was significant, $F(4, 281) = 3.89$, $p < .005$. Moreover, the second hypothesis of

brand-specific associations dominating product category similarity is supported. The focal brand was more preferred in the dissimilar than the similar condition, $F(4,151) = 4.16$, $p < .004$, whereas the contrast brand was less preferred in the dissimilar condition $F(4,150) = 3.51$, $p < .009$.

Given the nested design, it was not possible to examine the three way interaction contrast of Similarity (Similar vs. Dissimilar) X Brand X Product Category. As previously discussed, the set of focal and comparison brands comprising the Brand manipulation differed by product category. For the cereal, soap, and gym shoe product categories, the focal and comparison brands had different associations, and only the focal association was valued in the dissimilar extension category. For the watch category, the focal and comparison brands had the same association valued in the dissimilar product category, but their association strength differed. The results of analysis of variance tests for each product category are examined comparing similar and dissimilar extensions below.

For two product categories in which the focal and comparison brand had different brand-specific associations, significant Similarity X Brand interaction contrasts were obtained, {(Cereal, $F(1,103) = 9.12$, $p < .004$), and (Soap, $F(1,99) = 8.58$, $p < .005$)}. Simple main effects of Brand showed that for the cereal product category, the focal brand (Froot Loops) was directionally preferred in the dissimilar

(Lollipops and Popsicles) than the similar extension (Waffles), ($\bar{M} = 5.61$ vs. $\bar{M} = 4.76$, $F(1,48) = 1.50$, $p > .22$), whereas the opposite was true of the comparison brand (Cheerios), ($\bar{M} = 2.51$ vs. $\bar{M} = 4.26$, $F(1,48) = 10.91$, $p < .002$). For the soap product category, the focal brand (Irish Spring) was equally preferred in the dissimilar (Shoe Deodorizer and Room Freshener) and similar extensions (Bubble Bath), ($\bar{M} = 6.47$ vs. $\bar{M} = 6.60$, $F(1,44) = 0.54$, $p > .46$), whereas the comparison brand (Camay) was more preferred in the similar extension, ($\bar{M} = 3.95$ vs. $\bar{M} = 6.16$, $F(1,47) = 16.03$, $p < .001$). Although the focal brand was not more preferred in the dissimilar than the similar extension category, it was at least equally preferred in both extensions. On the other hand, the comparison brand was more preferred in the similar than dissimilar extension category. Therefore, these categories show brand-specific associations moderating product category similarity, but the results are weak with respect to brand-specific associations dominating similarity.

However, there was no Similarity (Similar vs. Dissimilar) X Brand interaction contrast for the gym shoe and watch product categories [(Gym Shoe, $F(1,101) = 1.52$, $p > .22$), and (Watch, $F(1,101) = 0.06$, $p > .80$)]. Examining the similar and dissimilar comparison, one sees that this result is due to both brands being more preferred in the dissimilar than the similar extension. In the gym shoe product category, the focal brand (Nike) was more preferred in the dissimilar (Pain Rub

and Thirst Quencher) than the similar extension (Wingtip), ($\bar{M} = 4.76$ vs. $\bar{M} = 2.03$, $F(1,48) = 11.29$, $p < .002$) extension as was the comparison brand (L. A. Gear), ($\bar{M} = 4.88$ vs. $\bar{M} = 3.65$, $F(1,46) = 4.04$, $p < .05$). In the watch product category, the focal brand (Timex) also was more preferred in the dissimilar (Alarm System and Outdoor Thermometer) than the similar extension (Bracelet), ($\bar{M} = 6.15$ vs. $\bar{M} = 3.43$, $F(1,47) = 7.61$, $p < .01$) as was the comparison brand (Seiko), ($\bar{M} = 6.52$ vs. $\bar{M} = 3.47$, $F(1,47) = 11.84$, $p < .002$). Thus, these category replicates display extension judgments where product category similarity appeared to have little effect as both brands are more preferred in the dissimilar than the similar extension.

In the watch product category, when both brands possessed associations that were valued in the dissimilar extension category, both brands were more preferred in the dissimilar than similar extension category. Surprisingly, differential strengths of association did not seem to affect the brand judgments in the dissimilar extension category. However, posttest findings reveal that it was a manipulation problem. Timex was actually less associated with reliability than Seiko, although this difference was not significant ($\bar{M} = 7.29$ vs. $\bar{M} = 7.71$), $t(1,23) = 0.85$, $p > .40$) in ratings of brand associations. This test was not conducted a priori because the results of Experiment 1 Manipulation Check 2 had shown a high correspondence between the free association task and the association rating task. Consequently, no definitive

statements can be made about the differential effects of strength of brand association on brand extension judgments. Future research is needed to examine the role of brand association strength in brand extensions (Farquhar, Herr, and Fazio, 1990).

The results of the gym shoe category revealed that both the brands of Nike and L.A. Gear were viewed more favorably in sport-related extension categories than in a dress shoe extension. This was expected for Nike because of its athletic association, but not for L.A. Gear which was associated with fashion. Cognitive responses suggest two possible explanations. One is that some subjects may not have known what wingtips were and the other is that L.A. Gear is generally viewed as a women's brand and wingtips are men's dress shoes. Interestingly, though these results suggest that sport-related extensions would be the most favorably received, Nike has recently extended into ladies pumps. One rationale for this extension is the hope that a gym shoe would transfer the association of comfort to the category of ladies pumps.

In summary, the category replicates generally showed the focal brand being more preferred in a dissimilar extension category that valued its association than a similar extension category that did not value its association. Although the results show a main effect of product category similarity in extension judgments, this effect is qualified by its interaction with the relevance of the brand-specific

association in the extension category. The results also suggest that not only may brands have benefits that are valued in dissimilar categories, but a product category association may also be valued in a dissimilar extension category.

Line versus dissimilar extensions. Recall that it was difficult to select line extensions that were low on extension relevance for the focal brand. This was only possible in the cereal and soap product categories, but even in these instances the focal brand's association was rated above the mean for extension relevance. In contrast, line extensions are, by definition, a powerful manipulation of similarity and this result was confirmed by pretest similarity ratings. The line and dissimilar extensions for each category were rated at opposite ends of the nine point similarity scale. Thus, this contrast provides a very conservative test of the hypothesis.

The Brand X Similarity interaction contrast between line and dissimilar extensions was significant, $F(4,279) = 5.75$, $p < .002$, however the nature of the interaction differed from the similar vs. dissimilar comparison. Here, line extensions are preferred to dissimilar extensions, but this difference is not significant for focal brands ($F(4,149) = 1.13$, $p > .34$) whereas it is for comparison brands ($F(4,149) = 4.82$, $p < .002$). Therefore, even with a conservative test, the focal brand is not more preferred in line than dissimilar extensions.

Because the extension relevance manipulation only held for two of the four product categories, this contrast was examined for each product category. For both product categories in which the line extension differed from the dissimilar extension on extension relevance ratings, significant Similarity (Line Extension vs. Dissimilar) X Brand interactions were obtained, [(Cereal, $F(1,102) = 21.00$, $p < .0001$) and (Soap, $F(1,98) = 11.06$, $p < .002$)]. In the cereal product category, the focal brand (Froot Loops) was marginally preferred in the dissimilar (Lollipops and Popsicles), ($M = 5.01$) than the line extension (Hot Cereal), ($M = 4.48$), $F(1,47) = 3.76$, $p < .06$, whereas the comparison brand (Cheerios) was more preferred in the line ($M = 5.92$) than the dissimilar extension ($M = 2.62$), $F(1,48) = 22.13$, $p < .0001$. However, in the soap product category, both brands were more preferred in the line (Liquid Hand Soap) than the dissimilar extension (Shoe Deodorizer and Room Freshener), although this difference was smaller for the focal brand (Irish Spring), ($M = 6.75$ vs. $M = 5.85$, $F(1,46) = 5.06$, $p < .03$) than the comparison brand (Camay), ($M = 7.39$ vs. $M = 4.06$, $F(1,45) = 46.07$, $p < .0001$). As one would expect, the interaction contrast of Similarity (Line Extension vs. Dissimilar) X Brand interaction for product categories in which extension relevance was not manipulated [(Gym Shoe, $F(1,102) = 2.23$, $p > .13$ and (Watch, $F(1,100) = 0.08$, $p > .77$)]. Thus, in this comparison of line extension vs. dissimilar extension that

avored similarity, brand-specific associations still dominated for the cereal category and significantly reduced similarity's influence in the soap category.

Fit versus evaluative dependent measures. This factor was exploratory and no hypotheses were proposed. Park et al. (1990) suggested that a fit measure encompasses more than similarity, and MacInnis and Nakamoto (1990) found that fit explained a large portion of the variance in extension evaluations. The three way interaction of Similarity X Brand X Dependent Measure was not significant, $F(8,422) = 1.18$, $p > .30$, but the interaction of Similarity X Dependent Measure was significant, $F(8,422) = 2.22$, $p < .03$. Interaction comparisons revealed that there was a significant Similarity X Dependent Measure interaction between the line and dissimilar extensions $F(4,279) = 3.09$, $p < .02$, but not in the similar versus dissimilar ($F(4,279) = 1.38$, $p > .23$ or line versus similar ($F(4,126) = 1.04$, $p > .25$) extensions. As shown by the least square means for each dependent measure in Table V-10, this appeared to be due to higher fit ratings in the line extension condition, whereas the fit and evaluative ratings were similar for dissimilar extensions. This result suggests that the fit measure was actually more sensitive to product category similarity than the evaluative measure.

However, the important comparisons are its sensitivity to the Similarity X Brand interaction in similar vs. dissimilar and line vs. dissimilar extension conditions. For both

TABLE VI-10

LEAST SQUARE MEANS FOR EACH DEPENDENT MEASURE

FIT DEPENDENT MEASURE			
ORIGINAL CATEGORY	LINE	SIMILAR	DISSIM
CEREAL			
Focal Brand	4.78	4.76	5.61
Comparison Brand	5.89	4.26	2.51
SOAP			
Focal Brand	7.67	6.60	6.47
Comparison Brand	8.08	6.16	3.95
GYM SHOE			
Focal Brand	7.65	2.09	5.83
Comparison Brand	8.34	4.51	5.07
WATCH			
Focal Brand	7.19	3.29	5.28
Comparison Brand	5.96	4.88	6.58

LIKE DEPENDENT MEASURE			
ORIGINAL CATEGORY	LINE	SIMILAR	DISSIM
CEREAL			
Focal Brand	4.17	4.47	4.38
Comparison Brand	5.95	6.17	2.89
SOAP			
Focal Brand	6.03	5.68	5.25
Comparison Brand	6.68	6.14	4.44
GYM SHOE			
Focal Brand	5.33	1.99	3.63
Comparison Brand	5.54	2.48	4.40
WATCH			
Focal Brand	4.71	3.41	7.06
Comparison Brand	5.33	2.30	6.63

comparisons, the three-way interaction of Similarity X Brand X Dependent Measure were not significant, ($F(4,281) = 0.78, p > .53$) and ($F(4,279) = 1.52, p > .19$) respectively. Thus,

these results provide little insight into what differentiates the fit construct from evaluative judgments in brand extensions. Future researchers may want to examine if ease of manufacturing the extension category (Aaker and Keller 1990) or other factors moderate this relationship.

In summary, this experiment found a brand-specific association X product category similarity interaction for functional products. Also, brand extensions to dissimilar product categories were judged more favorably than extensions to similar product categories if the brand's association was relevant in the dissimilar category. Even when comparing dissimilar to line extensions, brand-specific associations were shown to dominate or offset category similarity. Thus, a brand should leverage its strength of association and not limit extension opportunities to similar product categories.

Although this experiment demonstrated how brand-specific associations may dominate similarity, this does not imply that similarity is uninfluential. Insofar as similarity plays a role, its effects should be greatest when the influence of brand-specific associations is at its lowest, when consumers are incapable of incorporating brand-specific associations into their extension judgments. One obvious factor that may affect the influence of brand-specific associations is expertise. The next two experiments examine the moderating effect of knowledge of the brand's associations in extension evaluations.

CHAPTER VI
EXPERIMENT 3: AN EMPIRICAL INVESTIGATION OF THE MODERATING
ROLE OF EXPERTISE ON BRAND-SPECIFIC ASSOCIATIONS AND
BRAND AFFECT IN THE EVALUATION OF BRAND EXTENSIONS

Overview

In experiment 1, brand-specific associations were shown to moderate brand affect in extension evaluations such that preference reversals occurred between the original and extended category. This effect is predicted to occur only when consumers have knowledge of the brand-specific associations and these associations are relevant in the extension category. This experiment examines the hypothesis that brand-specific associations will be more influential than brand affect for consumers high in brand knowledge, whereas brand affect will be more influential for consumers low in brand knowledge.

Stimulus Materials

A product category was needed in which experts and novices had the same brand preferences, but experts had a higher level of brand knowledge. Additionally, both experts and novices needed to be familiar with the product category. The product category of personal computers was selected because it is a well-known category, but one in which technical knowledge varies across people.

Market share was used as a surrogate for brand preference in the selection of brands. Based on market share, Apple was selected as the more preferred personal computer brand (9.4%), and Compaq was selected as the less preferred brand (4.0%), (Standard & Poor's Industry Surveys, 1990). Discussions with several computer personnel at the University of Florida revealed that Apple was associated with good software-run features such as graphics and sound, but poor hardware attributes. On the other hand, Compaq was associated with good hardware construction, but had no software associations. Although undergraduates also associated Apple with graphics and user friendliness, they lacked the technical knowledge of hardware design, and associated Compaq as an IBM clone with laptop computers.

Extension categories in which these brand associations were valued were generated from discussions with computer personnel. A machine reader was selected as an appropriate extension for Apple because its associations of graphics and sound were relevant. A machine reader is a hand-held device used primarily by sight-impaired individuals that scans written pages and then speaks the text aloud. A mainframe computer was selected as an appropriate extension for Compaq because its hardware design is several steps more advanced than a personal computer. Mainframe computers are large, stand-alone machines with substantial memory capacity and can accommodate multiple person simultaneous use.

Experimental Design

A 2 (Brand) X 2 (Extension Relevance) X 2 (Brand Knowledge) mixed design was used. Brand is a between-subjects factor that pitted the more preferred Apple brand versus the less preferred Compaq brand. Extension Relevance is a within-subject factor involving whether the associations of Apple (machine reader) or Compaq (mainframe) were relevant in the extension category. Brand Knowledge is a between-subjects factor (high vs. low knowledge of the brands). Computer engineers with either masters or doctorate degrees served as brand experts. They were employed at a specialized computer firm that did not compete in the personal computer market. Undergraduates at the University of Florida served as novices.

Subjects evaluated two extensions for the same brand name. One extension was relevant to the brand association and the other was not. The order in which subjects evaluated the extensions was counterbalanced. Subjects were randomly assigned to the brand conditions.

Experimental Procedure

Forty-six subjects participated in this experiment. Fifteen expert and thirty-one novice subjects volunteered to participate. One novice subject was dropped because he identified himself as working part-time for a computer firm. Subjects received an introductory page that explained brand extensions and a second page that explained the focus of this

experiment was on personal computer extension (see Appendix IV-1).

For each extension, the product category was defined at the top of the page. Subjects then responded to the same two evaluative items used in experiment 1. The first item asked subjects to rate their overall evaluation of the extension relative to existing brands in that category from one of the worst (1) to one of the best (9). The second item asked subjects to rate their preference for the potential brand product from dislike (1) to like (9). The third item concerned cognitive responses to the potential brand extension. These items are presented in Appendix IV-2.

Subjects answered the three items for the two potential brand extensions. They then answered several questions about brand names that served as a manipulation check of brand preference and as covariates. They rated their preference, familiarity, perception of extension breadth, usage of personal computer brands and their perception of the difficulty making the extension products (see Appendix IV-3).

Results

It was predicted that the experts' judgments would be dominated by relevance of brand-specific associations in the extension categories and novices' extension judgments would be dominated by brand affect. Thus, one would expect a Brand X Extension Relevance X Brand Knowledge interaction.

Furthermore, one would expect preference reversals from the original to the focal extension category for experts, but not for novices.

Manipulation Check

In stimulus selection, market share served as a surrogate for brand preference with Apple being more preferred than Compaq. The results of subjects' brand preferences confirmed this manipulation. For both experts ($\bar{M} = 7.07$ vs. $\bar{M} = 4.80$, $F(1,14) = 15.21$, $p < .01$) and novices ($\bar{M} = 7.42$ vs. $\bar{M} = 5.90$, $F(1,29) = 12.51$, $p < .01$), Apple was more preferred than Compaq as a personal computer brand. As one would expect, experts were more familiar than novices with Compaq ($\bar{M} = 7.47$ vs. $\bar{M} = 4.39$) and with Apple ($\bar{M} = 8.33$ and $\bar{M} = 7.90$).

Dependent Measure

The two measures of extension evaluation were highly correlated for each extension [(Mainframe, Pearson $r = .72$); (Machine Reader, Pearson $r = .76$)] and were averaged to produce a single dependent measure in the analyses.

Hypothesis Testing

The design was analyzed by a mixed ANOVA with between-subjects factors of brand and expertise, within-subject factor of extension relevance, and five covariates. The results are presented in Tables VI-1 to VI-3. The statistical test of the hypothesis is the same treating Brand as a fixed or random factor.

The least square means are presented in Table VI-1. Subjects appeared to see both extensions as plausible because the means were generally above the midpoint of the scale.

Table VIII-1

LSMEANS OF EXTENSION JUDGMENTS

EXTENSION CATEGORIES	EXPERTS		NOVICES	
	Apple (n = 8)	Compaq (n = 7)	Apple (n = 17)	Compaq (n = 13)
Machine Reader	7.97	5.18	7.01	6.51
Mainframe	2.64	4.36	6.65	6.04

Table VIII-2

ANALYSIS OF VARIANCE FOR BETWEEN-SUBJECTS EFFECTS

SOURCE	TYPE III SS	DF	F VALUE	P > F
BRAND	1.6257	1	1.07	0.3083
EXPERT	23.5183	1	15.44	0.0004
BRAND*EXPERT	0.0266	1	0.02	0.8955
BREADTH	0.1856	1	0.12	0.7291
IMAGE	18.2012	1	11.95	0.0014
USAGE	1.4105	1	0.93	0.3422
DIFFICULTY	9.4725	1	6.06	0.0007
SUB(BRAND EXPERT)	56.3691	37		

Table VIII-3

ANALYSIS OF VARIANCE FOR WITHIN-SUBJECT EFFECTS

SOURCE	TYPE III SS	DF	F VALUE	P > F
EXTEN RELEVANCE	22.5400	1	12.04	0.0013
EXTEN*BRAND	16.7062	1	8.92	0.0048
EXTEN*EXPERT	3.9228	1	2.10	0.1555
EXTEN*BRAND*EXPERT	21.5543	1	11.51	0.0016
DIFFICULTY	18.5470	1	9.91	0.0031
EXTEN*SUB(BRND EXPT)	74.8756	40		

The between-subjects ANOVA in Table VI-2 shows a main effect of Expertise, $F(1,37) = 15.44$, $p < .001$ and a significant image covariate, $F(1,37) = 11.95$, $p < .002$. All other effects were not significant, F 's < 1 , except the difficulty of making the extension category, which is more appropriately discussed as a within-subject factor.

The within-subject ANOVA in Table VIII-3 shows that the predicted three-way interaction of Extension Relevance X Brand X Expertise was significant, $F(1,40) = 11.51$, $p < .002$. Simple effect tests for expertise show that the Extension Relevance X Brand interaction was significant for experts, $F(1,12) = 7.71$, $p < .02$, but not for novices, $F(1,27) = 0.08$, $p > .77$. Thus, consumers high in brand knowledge evaluated extensions based on whether the brand's association was relevant in the extension category, but novices were not influenced by brand-specific associations. Although the means indicate that the

more preferred brand, Apple, received higher evaluations from novices in both extension categories, the simple main effect for brand affect was not significant, $F < 1$.

The difficulty of making a product in the extension category covariate was significant, $F(1,40) = 9.91$, $p < .004$. Surprisingly, the machine reader was perceived as a more difficult product to make, perhaps because there are few in existence today.

The test of the second hypothesis, a preference reversal by experts between the original product category and the extension category that valued the less preferred brand's association, involves whether there was a Brand X Expertise interaction for the extension category in which the focal brand's association was valued. In the mainframe extension category, the less preferred brand, Compaq, had a relevant association and therefore was expected to be more preferred as an extension than Apple by subjects high in brand knowledge. A significant Brand X Expertise interaction was obtained for the mainframe extension, $F(1, 37) = 5.44$, $p < .03$. Simple effects show that this was the result of experts preferring Compaq ($M = 4.36$) to Apple ($M = 2.64$), $F(1,14) = 6.53$, $p < .04$, whereas novices preferred Apple ($M = 6.65$) to Compaq ($M = 6.04$), although this effect was not significant, $F < 1$.

In summary, brand-specific associations were shown to moderate the effect of brand affect on extension judgments only for consumers high in brand knowledge. For brand experts,

extension judgments were based on whether brand-specific associations were relevant in the extension category and these associations led to preference reversals from the original to the extended category for Compaq in the mainframe extension. For those low in brand knowledge, extension judgments appeared to be based on brand affect or brand awareness as Apple was directionally preferred in both extension categories.

CHAPTER VII

EXPERIMENT 4: AN EMPIRICAL INVESTIGATION OF THE MODERATING ROLE OF EXPERTISE ON BRAND-SPECIFIC ASSOCIATIONS AND PRODUCT CATEGORY SIMILARITY IN THE EVALUATION OF BRAND EXTENSIONS

Overview

In experiment 2, all brands were explicitly chosen to be high familiarity brands whose associations were well-known. This experiment examines the moderating effect of brand expertise on product category similarity in extension judgments. Specifically, a brand's unique associations are expected to moderate the effect of product category similarity in the extension judgments of those high in brand knowledge. Furthermore, brand-specific associations are expected to dominate the extension judgments of brand experts, whereas product category similarity is expected to dominate the extension judgments of those low in brand knowledge.

Stimulus Materials

After examining several product categories, the category of women's dresses was selected because novices and experts both had high familiarity with the product category, yet differed in their brand knowledge. Discussions with female groups of undergraduate students, university staff, and members of a professional organization revealed different knowledge levels of various brands. Professional women had

clearly categorized these brands into career vs. casual wear, whereas the other women had trouble differentiating among them, even though they recognized the brand names. Based on these discussions, Leslie Fay and Laura Ashley were identified as professional and casual dress brands respectively. Leslie Fay was felt to be a marginal professional brand and was in the process of upgrading this image (Roman, 1990), but was selected because leading professional dress brands were multiply extended. Laura Ashley was a well-known brand that was associated with a floral pattern and country style whose primary association was to dresses, although it had extended to linens (Melcher, 1991).

A pretest was needed to develop extension categories that varied in their similarity and association relevance to the dress brands. Thirty-eight undergraduate subjects were randomly assigned to rate either the similarity of extension categories to the dress category or the relevance of the selected brand associations in various product categories (see Appendix VA). Eighteen subjects rated the similarity of dresses to potential extension categories on a 9 point scale ranging from not at all similar to very similar. Twenty subjects rated the relevance of associations for these extension categories on a 9 point scale ranging from not at all relevant to very relevant.

The data were analyzed by t tests for differences between the extension categories. The similarity means are presented

in Table VII-1. The product categories of nightgown ($\bar{M} = 4.11$) and trenchcoat ($\bar{M} = 2.61$) were rated as more similar to dresses than the product categories of picnic basket ($\bar{M} = 1.11$) and briefcase ($\bar{M} = 1.11$), $p < .05$.

TABLE VII-1

MEANS FOR SIMILARITY RATINGS

A) Dress - Nightgown	4.11 ^{BCD}
B) Dress - Trenchcoat	2.61 ^{ACD}
C) Dress - Picnic Basket	1.11 ^{AB}
D) Dress - Briefcase	1.11 ^{AB}

*Means on a 9 Point Scale (n = 18). Superscripts indicate ratings of contrast categories that are significant at the 0.05 level.

The association relevance means are presented in Table VII-2. The business association of Leslie Fay was more relevant in the extension categories of trenchcoat ($\bar{M} = 6.05$) and briefcase ($\bar{M} = 8.30$) than the categories of nightgown ($\bar{M} = 1.15$) and picnic basket ($\bar{M} = 1.15$), $p < .05$. On the other hand, the floral association of Laura Ashley was more relevant in the product categories of nightgown ($\bar{M} = 5.15$) and picnic basket ($\bar{M} = 4.10$) than the categories of trenchcoat ($\bar{M} = 1.05$) and briefcase ($\bar{M} = 1.00$), $p < .05$. Based on these results, two similar extension categories and two dissimilar extension categories were selected such that for each similarity level, one extension valued the association of Leslie Fay (trenchcoat and briefcase) and the other of Laura Ashley (nightgown and picnic basket).

TABLE VII-2

MEANS FOR ASSOCIATION RELEVANCE RATINGS

COUNTRY	
A) Nightgown	2.65 ^{BC}
B) Trenchcoat	5.00 ^{ACD}
C) Picnic Basket	6.90 ^{ABD}
D) Briefcase	2.45 ^{BC}
PROFESSIONAL	
A) Nightgown	1.79 ^{BD}
B) Trenchcoat	5.85 ^{ACD}
C) Picnic Basket	2.20 ^{BD}
D) Briefcase	8.55 ^{ABC}
FLORAL	
A) Nightgown	5.15 ^{BD}
B) Trenchcoat	1.05 ^{AC}
C) Picnic Basket	4.10 ^{BD}
D) Briefcase	1.00 ^{AC}
BUSINESS	
A) Nightgown	1.15 ^{BD}
B) Trenchcoat	6.05 ^{ACD}
C) Picnic Basket	1.15 ^{BD}
D) Briefcase	8.30 ^{ABC}

*Means on a 9 Point Scale (n = 20). Superscripts indicate ratings of contrast categories that are significant at the 0.05 level.

Experimental Design

The design of this experiment was a 2 (Brand) X 2 (Similarity of Extension Category) x 2 (Extension Relevance) x 2 (Brand Knowledge) mixed design. Brand name (Leslie Fay vs. Laura Ashley) was a between-subjects factor. Similarity of extension category (similar vs. dissimilar) was a within-subject factor. Relevance of the Leslie Fay (professional) or Laura Ashley (floral casual) association in the extension category was a within-subject factor. Knowledge of the two

associations was a between-subjects factor. As a result of pretesting, professional women from a business council and accounting firm were considered to have high knowledge of the brands (experts), whereas undergraduate women were considered to have moderate knowledge of the brands (novices). Because of the requirement that the two groups should be equally familiar with the original product category, but should differ in their brand knowledge, a weak manipulation of brand knowledge resulted. For instance, male subjects could have been used as novices, but they would have little familiarity with the product category and rarely purchase from it. Thus, this is a conservative test of the moderating effect of knowledge.

The stimulus set for this experiment is presented in Appendix VB-1. Each subject evaluated four extensions for the same brand name. Two extensions were from similar product categories and two extensions were from dissimilar product categories and they varied in their relevance to the brand association. The order in which subjects evaluated the extensions was determined by a diagram-balanced Latin square design (see Appendix VB-2). Subjects were randomly assigned to the brand condition.

Experimental Procedure

Sixty-six subjects participated in this experiment. Thirty-five expert subjects responded from a pool of fifty questionnaires mailed to a business council and accounting firm. Thirty-one undergraduate women who volunteered to

participate for extra credit in a marketing course were novice subjects. Subjects received an introductory page that explained brand extensions (see Appendix VC-1). Expert subjects additionally received an extra page instructing them not to discuss this experiment with their colleagues.

For each extension, subjects responded to the same three items used for the evaluative group in Experiment 2. The first item asked subjects to rate how desirable the extension would be from undesirable (1) to desirable (9). The second item asked subjects to rate their preference for the potential brand extension from dislike (1) to like (9). The third item concerned cognitive responses to the potential brand extension. These items are presented in Appendix IIID-1.

Subjects answered the three items for the four potential brand extensions. They then answered several questions about brand names that served as covariates. They rated their preference, familiarity, and perception of extension breadth, image, and prototypicality of the dress brands (see Appendix VC-2).

Results

It was predicted that experts' extension judgments would be dominated by extension relevance and novices' judgments would be dominated by product category similarity. Thus, one would expect a Brand X Extension Relevance interaction for experts, but not for novices. Additionally, one would expect experts to prefer a brand extension to a dissimilar category

that valued the brand's association than an extension to a similar category that did not value its association.

Dependent Measure

The two measures of extension evaluation were highly correlated for each extension (Pearson $r > 0.81$) and were averaged to produce a single dependent measure in the analyses.

Analysis

The design was analyzed by a mixed ANOVA with between-subjects factors of expertise and brand, within-subject factors of similarity and extension relevance, and five covariates. The results are presented in Tables VII-3 to VII-5. Eight subjects were excluded from the analyses because they failed to complete the measures, mainly the covariates. However, Table VII-3 shows that the means with and without the covariates did not differ substantially.

Table VII-3

MEANS OF EXTENSION JUDGMENTS

	<u>LSMEANS (MEANS)</u>	
	LAURA ASHLEY	LESLIE FAY
EXPERT	(n = 21)	(n = 14)
Nightgown	7.30 (7.30)	5.86 (5.18)
Trenchcoat	3.76 (4.36)	5.26 (4.79)
Picnic Basket	4.89 (4.57)	2.53 (2.71)
Briefcase	3.20 (3.12)	2.71 (2.61)
NOVICE	(n = 17)	(n = 9)
Nightgown	6.82 (7.36)	7.21 (6.62)
Trenchcoat	6.17 (6.33)	6.31 (5.73)
Picnic Basket	4.15 (4.22)	3.31 (3.19)
Briefcase	5.08 (5.08)	4.64 (4.46)

Table VII-4

ANALYSIS OF VARIANCE FOR BETWEEN-SUBJECTS EFFECTS

SOURCE	TYPE III SS	DF	F VALUE	P > F
BRAND	4.4842	1	0.91	0.3444
EXPERT	49.8132	1	10.12	0.0025
BRAND*EXPERT	3.1633	1	0.64	0.4265
AFFECT	48.6365	1	9.88	0.0028
BREADTH	1.5235	1	0.31	0.5804
IMAGE	4.0591	1	0.82	0.3681
PROTOTYPICALITY	0.0495	1	0.01	0.9205
SUB(BRAND EXPERT)	246.0253	50		

The ANOVA for between-subjects factors in Table VII-4 displays a main effect of expertise, $F(1,50) = 10.12$, $p < .01$. The results show the affect covariate was significant, $F(1,50) = 9.88$, $p < .003$, but the other covariates were not, $F < 1$.

The within-subject ANOVA is presented in Table VII-5. The four-way interaction of Similarity X Relevance of association X Brand X Expertise was not significant, $F(1,50) = 0.77$, $p > .39$. However, the three-way interaction of Relevance of association X Brand X Expertise approached significance, $F(1,50) = 2.90$, $p < .10$. Simple effect tests at each level of expertise revealed that the Extension Relevance X Brand interaction was marginally significant for experts, $F(1,24) = 3.41$, $p < .08$, but not for novices, $F(1,19) = 0.18$, $p > .67$. The statistical test is the same for Brand treated as a fixed or random factor. Individuals high in brand knowledge based

Table VII-5

ANALYSIS OF VARIANCE FOR WITHIN-SUBJECT EFFECTS

SOURCE	TYPE III SS	DF	F VALUE	P > F
SIMIL	0.4850	1	0.15	0.6995
SIMIL*BRAND	7.9533	1	2.47	0.1223
SIMIL*EXPERT	0.1763	1	0.05	0.8159
SIMIL*BRAND*EXPERT	0.9546	1	0.30	0.5884
SIMIL*SUB	160.9196	50		
EXTEN RELEVANCE	0.0428	1	0.01	0.9323
EXTEN*BRAND	8.8140	1	1.50	0.2266
EXTEN*EXPERT	29.9973	1	5.10	0.0283
EXTEN*BRAND*EXPERT	17.0342	1	2.90	0.0949
EXTEN*SUB	293.9834	50		
SIMIL*EXTEN	1.0061	1	0.33	0.5671
SIMIL*EXTEN*BRAND	1.0649	1	0.35	0.5560
SIMIL*EXTEN*EXPERT	0.0661	1	0.02	0.8831
SIM*EXT*BRAND*EXPERT	2.3318	1	0.77	0.3846
SIMIL*EXTEN*SUB	151.5393	50		

their judgments on the relevance of the brand's association in the extension category, whereas those low in brand knowledge were not influenced by brand-specific associations.

Surprisingly, similarity did not interact with expertise, $F(1,50) = 0.05$, $p > .81$. Two reasons may account for this result. First, cognitive responses indicated a uniform favorable reaction to nightgowns due to the lack of

conservative (nonlingerie) brand names in this category. Also, there was a high degree of within-subject variability for novices.

The marginally significant Similarity X Brand interaction was not expected, $F(1,50) = 2.47$, $p < .13$ and reveals a problem with the Brand manipulation. This interaction was significant for experts, $F(1,24) = 11.31$, $p < .003$, but not novices, $F(1,19) = 0.22$, $p > .64$. For experts, simple main effect tests of similarity at each brand show that similarity was significant for Laura Ashley ($F(1,13) = 12.33$, $p < .01$, but was not significant for Leslie Fay ($F(1,6) = 0.22$, $p > .66$). The brand extension having the joint characteristics of high similarity and relevance of association was expected to be the most favorably evaluated. However, the designated high similarity, high relevance extension for Leslie Fay (trenchcoat) was not well received. Although over half of the Leslie Fay experts did not provide cognitive responses, those who did felt that Leslie Fay was a cheap brand and not professional for business. Furthermore, examining the covariates, Laura Ashley ($M = 8.24$) was found to be more familiar to experts than Leslie Fay ($M = 6.59$). More important, three of the 14 Leslie Fay experts responded that they had not even heard of the brand. Due to the poor manipulation of brand and expertise for Leslie Fay, it was decided to focus the hypothesis testing exclusively on Laura Ashley.

Hypothesis Testing

The hypothesis predicted that experts' extension judgments would be influenced more by whether the brand's association was relevant in the extension category than by product category similarity. Conversely, novices were expected to be influenced by product category similarity. The critical comparison is between the high similarity, nonrelevant association extension (trenchcoat) and the low similarity, relevant association extension (picnic basket). This comparison differed significantly by expertise $F(1,30) = 6.35$, $p < .02$. Experts preferred the low similarity, relevant extension ($M = 4.95$) to the high similarity, nonrelevant extension ($M = 3.86$), $F(1,14) = 2.03$, $p < .18$, whereas novices preferences were driven by similarity ($M = 4.12$ vs $M = 6.12$, respectively), $F(1,12) = 2.49$, $p < .15$, however small cell sizes made these simple effects tests nonsignificant.

This dominance of brand association for experts and product category similarity for novices in their extension judgments is especially powerful given that novices were highly familiar with the Laura Ashley name ($M = 6.87$). The most common cognitive responses by novices for trenchcoats was that it was within the clothing category of Laura Ashley, whereas picnic baskets were not. One alternative explanation for this result may be that experts were more aware of Laura Ashley's breadth of extension than novices, and consequently were more willing to accept a dissimilar extension. Two

factors indicate that this was not the case. First, the breadth of extension covariate for experts was not significant, $F(1,24) = 1.00$, $p > .32$. Second, cognitive responses did not mention existing Laura Ashley extensions, and several experts commented that the picnic basket would be appropriate because it could be lined with Laura Ashley's floral print.

In summary, brand knowledge did moderate the effect of brand-specific associations and product category similarity in extension evaluations. When consumers had knowledge of brand-specific associations, they dominated their brand extension evaluations. However, when consumers had low knowledge of brand-specific associations, product category similarity dominated their extension judgments.

CHAPTER VIII GENERAL DISCUSSION

The results of these four studies provide strong evidence for brand effects in brand extension judgments. Multiple brand-specific associations were shown to moderate the effect of brand affect and product category similarity in brand extensions across several product categories. Moreover, the impact of brand-specific associations was found to be so influential that it dominated brand affect and product category similarity in extension evaluations. When leveraging a brand, managers apparently should be most concerned about extending to a category where the brand's specific association is relevant. However, brand-specific associations only influenced extension judgments for consumers who were high in brand knowledge.

In experiment 1, brand-specific associations caused preference reversals from the original to the extended category. When a brand's association was relevant in the extension category, it was able to be more preferred as an extension than a brand from its original product category that had higher affect. This result was quite robust as preference reversals occurred in each of the five replicate product categories. Thus, a brand's specific associations provided an

advantage over its original competitors when extending to a new product category, even if the competitors had higher brand affect.

Experiment 2 found that brand-specific associations enabled a brand to extend to dissimilar product categories. Brand-specific associations moderated the role of product category similarity in brand extension judgments such that a brand extension was more preferred to a dissimilar category that valued its association than to a similar category that did not value its association. At the individual category level, the four product replicates displayed brand-specific association X product category similarity interactions, but there was mixed support for the stronger assertion that brand-specific associations dominate category similarity in extension judgments. However, in all cases, the focal brand was at least equally preferred in the dissimilar extension in which its association was relevant as in the similar extension.

Because similarity can be defined in many different ways, a conservative test of brand effects was conducted by comparing a dissimilar extension category where the brand-specific association was relevant to a line extension. The results showed a significant brand-specific association X product category similarity interaction. One category even displayed a marginally significant instance of the dissimilar extension being more preferred than the line extension.

For the consumer, the benefits a brand offers are likely to be highly salient and serve as the connection point between the original and extended products. Although both product category similarity and brand-specific associations influence a consumer's judgment of brand extensions, these results suggest that opportunities to exploit a brand's value are not limited to similar extension categories. Furthermore, unlike previous suggestions (Park et al., 1991), brands with functional associations were not constrained by product category similarity.

Although manufacturing synergy may cause physical feature similarity to be important from a managerial perspective, this consideration is likely to have low salience for the consumer (Chakravarti et al., 1990), except acting as a possible constraint that the extension must be within the firm's technological abilities (Aaker and Keller, 1990). This suggests that one boundary on similarity may be that a brand cannot extend to a more complex or specialized product than the original category. For instance, consumers may have difficulty accepting Swatch watch's extension into automobiles (Deveny, 1990) because automobile production requires a higher technological capability than watch production.

Another constraint on the influence of brand effects in brand extensions is that the consumer must have knowledge of the brand-specific association to make the connection between the original and extended product. Experiment 3 found that

brand-specific associations dominated brand affect for those high in brand knowledge, but there was no effect of brand-specific associations for those low in brand knowledge. Similarly, in experiment 4, brand-specific associations were shown to dominate product category similarity for brand experts, but there was no effect of brand-specific associations for brand novices. Therefore, only consumers who are knowledgeable about the brand will favorably evaluate it in an extension category in which its brand-specific association is relevant. For consumers who are low in brand knowledge, the previously reported effects of brand affect and product category similarity are likely to be determinant.

Because only consumers who are knowledgeable about a brand will make the connection that its benefits are relevant in an extension category, the market potential for the brand extension may be limited. However, these brand-specific associations should allow the brand to compete effectively against existing members of the extension category. By extending to a relevant category, a brand is already associated with a benefit that the consumer is seeking in that product category. Brands that extend based on product category similarity or brand affect may have little to differentiate themselves to be successful in the extension category. Existing research has only examined brand extension judgments in isolation or against members from its original product category. Future research is needed to examine how well brand

extensions fare against existing members of the extension category.

This research examined extensions into categories in which the salient association of the category matched the salient association of the brand. The mere process of extending into a new category may allow the brand to frame the attributes in the extended category. Metaphor researchers (Ortony 1979a, b) argue that the salient features of the original brand determine which features are salient in the extended brand. Concurrently, these features may become more salient in the extension category as a whole. Insofar as such "promoted" features become more memorable and increase in perceived importance, they are expected to affect preference, particularly if they were previously nonsalient (cf. Gardner, 1983; MacKenzie, 1986; Wright and Rip, 1980). And because these attributes represent a particular strength of the extended brand, they may be parlayed into a significant and brand-specific competitive advantage.

Ortony (1979a, b) also proposed what he refers to as attribute introducing comparisons. In this case, the salient attributes of the original brand introduce new attributes into the representation of the extended category. Stated a different way, people draw inferences about features of the target brand based on the salient features of the original brand. Consumers may make elaborative inferences that in order for the brand to extend into any product category, it must

retain certain brand-specific associations (cf. Alba and Hutchinson, 1987). Consequently, the consumer may infer attributes about the extended brand that previously did not exist in the extended product category.

The original brand would need to possess a very salient feature for it to introduce a new attribute into the extended category. For instance, although Bic introduced its main association of disposability into the perfume product category, its prior extensions had made this association very salient.

Brand extensions also may reinforce the specific associations of the brand. An extension into a category that shares the same benefit may strengthen that association with the brand name and thereby increase the brand's value even its original product category. The fact that current results show little effect of brand dilution (Keller and Aaker, 1992; Roedder-John and Loken, 1990) suggests that brands should extend where their associations would provide the most leverage.

One interesting finding is that an association relevant in the extension category may transfer to the brand. For instance, IBM was favorably evaluated as a maker of instruction tapes, because subjects stated that the user friendliness associated with that product category was currently not associated with IBM and they felt IBM would benefit from the association. Thus, one way of strengthening

a brand in its original category may be to extend it to categories in which the salient association provides a new benefit to the brand name, especially if there are limited negative risks to the core brand.

In conclusion, brand extension is inherently a managerial topic and therefore brand X product class interactions are of supreme importance. Looking at product class effects may give one a better understanding of cognitive processes (Boush and Loken, 1991), but have limited value to brand managers. A brand's specific associations strongly influence how consumers evaluate brand extensions and often dominate these product class effects. Moreover, brand associations may provide leverage not only for a favorable extension evaluation, but a competitive advantage in the extension category. Although examining brand effects requires extensive pretesting due to prior associations, it is exactly these associations that give the brand value to leverage in extensions.

APPENDIX I

DETAILED LISTING OF TASKS FOR PRETESTS

APPENDIX IA-1

BRAND AND PRODUCT CATEGORY LIST

Watch*

Elgin
Swatch
Seiko
Geneve
Citzen
Timex
Casio
Pulsar
Armitron
Helbros
Rolex
Sharp
Jules Jurgensen

Microwave

Sharp
Panasonic
Emerson
Litton
Sunbeam
General Electric
Amana
Tappan
Sears

Toaster Oven

Black & Decker
Westbend
Faberware
Toastmaster
Proctor-Silex

Coffee Maker

Hamilton Beach
Mr. Coffee
Braun
Black & Decker
Norelco
Oster
Proctor-Silex
Sunbeam

Handmixer

Sunbeam
Hamilton Beach
Black & Decker
Kitchen Aid

Vacuum Cleaner

Eureka
Hoover
Singer
Regina

Hair Dryer

Clairol
Conair
Vidal Sassoon
Windmere
Sunbeam

Luggage*

Samsonite
American Tourist
Jordache
Amelia Earhart
Verdi
Lucas
Jundra

APPENDIX IA-1 -- continued

Pens*

Cross
Parker
Sheaffer
Mont Blanc
Bic
Papermate
Pilot

Typewriter

Casio
Sharp
Panasonic
Brother
Smith Corona
Canon
Olivetti
Royal

Calculators

Sharp
Casio
Texas Instruments
Royal
Hewlett-Packard

Answering Machine

Panasonic
AT & T
General Electric
Phone-Mate
Sony

Bicycles*

Huffy
Murray
Schwinn
Magna

Cameras

Canon
Minolta
Nikon
Vivitar
Olympus
Pentax
Polaroid
Kodak
Fuji

Television

Sony
Magnavox
Sharp
Emerson
General Electric
RCA

Stereo Cassette Recorder

Sony
Sanyo
General Electric
Panasonic

Tennis Racquet

Wilson
Prince
Head

Coolers*

Coleman
Playmate
Igloo
Gott

APPENDIX IA-1 -- continued

Board Games

Parker Brothers
Milton Bradley

Toys*

Fisher Price
Playskool
Mattel
Kenner
Ideal
Coleco

Cleansing Cream*

Noxzema
Oil of Olay
Pond's
Vaseline
Clinique
Mary Kay
Estee Lauder

Perfume

Chanel
Chloe
White Linen
Giorgio
Halston
Obsession
Charlie
Vanderbuilt
WindSong

Charcoal

Kingsford
Matchlight
Royal Oak

Automobiles*

BMW
Honda
Toyota
Nissan
Ford
Chrysler
Chevrolet

Batteries*

Duracell
Everready Energizer
Kodak Supralife
Ray O Vac

Computers*

Commodore
Apple
Atari
IBM
Compaq
Texas Instrument
Zenith
Canon
Tandy

Sewing Patterns

Simplicity
McCall's
Butterick
Vogue
Stretch & Sew

Antifreeze

Prestone
Peak
Zerex
Dowguard
K-Mart

APPENDIX IA-1 -- continued

Car Batteries

Sears Diehard
Delco Freedom
Goodyear
Firestone
Montgomery Ward

Car Wax

Raindance
Simoniz
Johnson's
Turtle Wax

Motor Oil

Havoline Supreme
Quaker State
Valvoline
Castrol
Penzoil

Automobile Tires*

Goodyear
Michelin
B.F. Goodrich
Sears
Firestone

Antibiotic Topical*

Neosporine
Bactine
Calamine
Cortaid
Lanacane
Mycitracin
Solarcaine

Sinus Medicine

Actifed
Contac
Sudafed

Cough Syrup

Robitussin
Vicks Formula 44
Benylin
Halls
Vicks Nyquil
Triaminic

Eye Drops

Murine
Visine
Clear Eyes
Baush & Lomb

Pain Relievers*

Bayer Aspirin
Anacin
Bufferin
Excedrin
Tylenol
Advil

Upset Stomach Remedy*

Pepto-Bismol
Alka-Seltzer
Rolaids
Tums
Maalox

Sore Throat Lozenger

Halls
Chloraseptic
Ludens
Secrets
Vicks

APPENDIX IA-1 -- continued

Deodorant*

ArRID
Ban
Dry Idea
Mennen Speed Stick
Old Spice
Right Guard
Secret
Soft & Dri
Sure

Sunscreen*

Coppertone
Hawaiian Tropic
Bain de Soleil
Sea & Ski
Tropical Blend

Toothpaste*

Colgate
Crest
Close-Up
Aqua Fresh
Aim
Gleem
Ultra Brite

Hair Conditioner

Clairol
Ivory
Finesse
Revlon Flex
Suave
White Rain

Shampoo*

Head & Shoulders
Suave
Pert
Prell
White Rain
Johnson's Baby
Vidal Sassoon
Agree
Clairol
Selsun Blue
Revlon

Disposable Shavers

Bic
Gillette
Schick
Daisy
Personal Touch

Camera Film

Fuji
Kodak
Polaroid

Abrasive Cleaners

Comet
Ajax
Soft Scrub

Air Freshener Spray

Lysol
Airwick Magic Mushroom
Glade
Renuzit
Twice as Fresh
Touch of Scent
Crystallaire

APPENDIX IA-1 -- continued

Laundry Detergent*

Tide
Clorox
Surf
All
Fab
Bold
Cheer
Arm & Hammer
Era
Yes
Gain
Ivory
Dreft
Fresh Start
Wisk

Dishwashing Detergent

Dawn
Palmolive
Ivory
Joy
Sunlight
Dove

Cleaners

Spic & Span
Fantastik
Formula 409
Pine Sol
Mr. Clean
Top Job
Tough Act
Tilex
Lysol

Toilet Bowl Cleaner

SaniFlush
Vanish
Bloo
Lysol
Bully

Automatic Dishwasher

Jet Dry
Sunlite
Palmolive
Cascade
Calgon
Electrosol

Bar Soap*

Lever 2000
Dial
Pure & Natural
Dove
Jergen's
Lux
Yardley
Tone
Zest
Irish Spring
Coast
Ivory
Camay
Shield
Caress
Aloe & Lanolin

Insecticide

Raid
Black Flag
Ortho
Combat

APPENDIX IA-1 -- continued

Fruit Juice*

Tang
10-K
Gatorade
Ocean Spray
Motts
Welch's
Minute Maid
Hi-C
Five Alive
Hawaiian Punch
Juicy Juice
Tropicana
Capri Sun
Kooler's
Maunalai
Seneca
Sunsweet
Dole
V-8
Hunt

Canned Fruits

Del Monte
Libby
Dole
Motts
Musselman
White House

Fabric Softener Sheets

Downy
Bounce
Snuggle
Final Touch
Cling Free
Purex Soft

Frozen Vegetables

Green Giant
Del Monte
Libby
Sunsweet

Tomato Sauce

Hunts
Progresso
Contadina
Del Monte

Spaghetti Sauce

Prego
Progresso
Ragu
Classico
Newman's

Mayonnaise

Miracle Whip
Kraft
Hellmanns

Salad Dressing

Newman's
Wishbone
Hidden Valley
Kraft
7 Sea

Soup

Campbell
Progresso

Pickles

Vlasic
Polski
Mount Olive
Carlo Beauty

Peanut Butter*

Roddenbury
Peter Pan
Jif
Skippy
Smuckers

APPENDIX IA-1 -- continued

Relish

Heinz
Mount Olive

Popcorn

Orville Redenbacher
Jolly Time
Jiffy
Pop Secret
Pillsbury
Gourmet

Potato Chips*

Pringles
Ruffles
Lays
Wise
Keebler Au Gratin

Nuts

Planters Peanuts
Dole Pistachios
Blue Diamond Almonds
Fisher Mixed Nuts
Eagle Nuts

Raisins

Sun Maid
Dole
Farm Boy

Ketchup

Heinz
Hunts
Brooks
Del Monte

Mustard

Guldens
Grey Poupon
French's
Plochman
Kraft

BBQ Sauce

KC Master
Heinz
Kraft
Bulls Eye
Open Pit
Bennigan's
Hunt

Steak Sauce

A-1
Heinz 57

Pancake Syrup

Karo
Aunt Jamina
Log Cabin
Mrs. Butterworth

Cake Mixes

Betty Crocker
Duncan Hines
Jiffy
Pillsbury

Muffin Mixes

Martha White
Better Crocker
Duncan Hines
Jiffy

Preserves and Jams

Simply Fruit
Smucker's
Welch's

Noodles

Muellers
Creamette
Ronzoni
Penn Dutch
Ponte

APPENDIX IA-1 -- continued

Napkins
Soft-Ply
Vanity Fair
Scott
Viva
Northern
Kleenex
Coronet
Mardi Gras

Candy Bars
Hershey
Snickers
M&M
Three Musketeers
Health Bar
Twix
Cadbury

Gum*
Wrigley
Dentyne
Trident
Carefree
Bubble Yum

Plastic Wrap
Saran Wrap
Ziploc
Glad Wrap

Paper Towels*
Scott
Brawny
Gala
Mr. Big
Bounty
Viva
Hi-Dri

Toilet Paper
Angel Soft
Charmin
Scott
Cottonelle
Coronet
Northern
White Cloud

Cereal*
Kelloggs
Quaker Oats
Post
General Mills
Total
Wheaties
Cherrios
Grape Nuts
Froot Loops

Granola Bars
Kellogg
Granola Dippys
Quaker Oats

Coffee
Brim
Maxwell House
Sanka
Special Roast
Folgers
Tasters Choice
Nescafe
Eight O'Clock
Maximum Freezed Dried

Tea Bags
Lipton
Luzianne
Tetley
Red Rose
Milford

APPENDIX IA-1 -- continued

Cooking Oil

Crisco
Wesson
Pompeian
Vigo
Mazola
Dukes
Puritan

Drink Mixes

Crystal Light
Nestle Ice Teasers
Koolaid
Wylers
Country Time

Soft Drink*

Pepsi
Coca-Cola
Mountain Dew
Sunkist
Dr. Pepper
A&W
7-Up
Sprite

Bottled Water

Evian
Natural Springs
Zephyrellis
Vovo
Colorado Mountain

Rice

Uncle Ben's
Mahotma
Minute Rice
Success

Salsa Sauce

Tio/S
Ortega
Old El Paso

Wine*

Gallo
California Ross
Blue Nun
Cella
Riu
Andre
Taylor California
Inglenook
Korbel
Paul Masson

Wine Coolers

Bartles & James
Seagrams
White Mountain Springs
Franzia

Beer*

Budweiser
Michelob
Busch
Lowenbrau
Schlitz
Old Milwaukee
Coors
Pabst Blue Ribbon
Strohs
Corona
Heineken

Waffles

Downy
Eggo
Aunt Jemina

APPENDIX IA-1 -- continued

Bread*

Wonder
Natural Grain
Bakery Goodness
Pepperidge Farm

Ice Cream

Ben N' Jerry's
Haagen-Daaz
Breyer's
Sweet'N'Low
Borden
Light N'Lively

Cakes

Pepperidge Farm
Sara Lee
Entemann's

Cookies

Oreo
Nabisco
Keebler
Pepperidge Farm
Chips Ahoy
Fig Newtons
Almost Home
Soft Batch

Bed Comforters

Laura Ashley (Burlington)
Ralph Lauren
A l e x a n d e r J u l i n a
(Fieldcrest)
Marimekko (Dan River)
Bill Blass (Springmaid)
Christian Dior (Wamsutta)
Utica
Martex
Canon Royal Family
Dakotah

Towels

Cannon
Martex

Dresses

Liz Claiborne
Pierre Cardin
Ralph Lauren
Chaus
Diane Von Furstenberg
Laura Scott
Anne Klein
Outlander
Saint Tropez
Espritide Corp

Sunglasses

Ray-Ban
Riveria
Coppertone

Jeans

Levi
Lee
Guess
Gitano
Calvin Klein
Gloria Vanderbilt

Pumps

9 West
Evan-Picone
Naturalizer
Paloma
Clarus
Garolini

APPENDIX IA-1 -- continued

Gym Shoes*

Nike
Puma
Reebok
New Balance
Adidas
L.A. Gear
Converse

Underwear

Fruit of the Loom
Hanes
Lily of France
Jockey
Vanity
Olga
Calvin Klein

Men's Clothes

Pierre Cardin
Izod
Calvin Klein
Alexander Julian
Yves St. Laurent
Oakbrook
Members Only
Levi Dockers
Cherokee
Perry Ellis

Resorts

Disney World
Sea World
Great America
Knotts Berry Farm
Busch Gardens
Universal Studios

Hotels

Holiday Inn
Marriott
Travelodge
Quality Inn
La Quinta
Econolodge
Hilton

Rental Car Companies

Hertz
Avis
Budget
General

Airlines

Eastern
United
US Air
Southwest
Delta
American
TWA

Fast Food Restaurants

McDonald's
Burger King
Hardees
Wendy's
Rax
Taco Bell
Kentucky Fried Chicken
Popeyes
Subway

APPENDIX IA-2
INSTRUCTIONS TO JUDGES

On the following pages you will see the names of various product categories. Your task is to select the product categories which strictly meet all 3 of the criteria listed below. A list of the brands available in this area for each product category are provided in the second booklet. Thank you for your cooperation.

Criteria To Use When Evaluating Product Categories:

- 1) Product category contains at least 2 well known brands with equal brand name familiarity that have not already been extended to other product categories.
- 2) Product class is differentiated so you have unique associations for various brands.
- 3) Product class differentiation is not totally due to designer or prestigious brands.

Note: When determining brand familiarity, you are to extrapolate to the marketing subject pool, and not base your decision on personal familiarity with a brand. Familiarity is defined as awareness of a brand, not necessarily brand usage.

APPENDIX IB-1
INSTRUCTIONS FOR EXPERIMENT 1 PRETEST 2

We are interested in your thoughts to a variety of brand names. You will have 30 seconds to write down any associations that come to mind for a given brand name.

These associations may include physical product features, benefits, usage situations, or any other thoughts. There are no correct answers. Please write down your initial thoughts.

The experimenter will keep track of time. Please do not begin until you are told to do so.

APPENDIX IB-2
BRAND ASSOCIATIONS

WATCH

<u>Seiko Watch (10)</u>	
Reasonable Price	70%
Stylish	40%
Durable	30%
Accurate	30%
Gold/Silver	30%

<u>Rolex Watch (7)</u>	
Expensive	86%
Status	71%
Gold/Silver	57%
Stylish	43%
High Quality	29%
Luxury	29%
Rich People	29%
Desire One	29%

<u>Watch (10)</u>	
Keep Time	40%
Digital	40%
Necessary	30%
Style	30%

<u>Timex Watch (10)</u>	
"Takes A Licking & Keeps On Ticking"	70%
Cheap	40%
Lower Quality	30%
Long-Lasting	30%
Good Quality	30%
Practical	30%

<u>Swatch Watch (10)</u>	
Colorful	60%
Out of Style	40%
Unique	40%
Trendy	30%
Inexpensive	30%
Own More Than One	30%

PEN

<u>Cross Pen (8)</u>	
Professional	50%
Good Gift	50%
Writing	50%
Good Quality	38%
Expensive	38%
Gold/Silver	38%
Distinguished	38%
Conservative	25%

<u>Bic Pen (9)</u>	
Cheap	89%
Disposable	44%
Use	44%
Value	33%
School	33%
10 Pack	22%
Explode	22%
Plastic/Clear	22%
Lighters	22%

APPENDIX IB-2 -- continued

<u>Papermate Pen (8)</u>	
Eraseable	50%
Blue Ink	50%
Cheap	25%
Reliable	25%
Various Colors	25%
Plastic	25%

<u>Pilot Pen (11)</u>	
Never Heard Of	64%

<u>Parker Pen (11)</u>	
Expensive	36%
Don't Know	36%
Cross Pen	36%
Smooth Writing	36%
Good Pen	36%
Status	27%
Present	27%

DEODORANT

<u>Right Guard Deodorant (9)</u>	
Men	78%
Sports	44%
Strong Odor	44%
Old Product	33%
Spray Can	33%

<u>Arrid Deodorant (11)</u>	
Unisex	27%
"Get Little Closer"	27%
Dryness	27%
Commercials	27%

<u>Deodorant (10)</u>	
Smell	80%
Drying	40%
Expected Use	30%

<u>Sure Deodorant (10)</u>	
"Raise Your Hand"	60%
Confidence	60%
Dryness	40%
White/Blue Package	30%
Roll-On	30%
Good Product	30%

<u>Secret Deodorant (7)</u>	
"Strong Enough For Man But For Woman"	86%
Nice Smell	43%
Anti-Perspirant	29%
Spicy	29%

CLEANSING CREAM

<u>Noxzema Cleansing Cream (9)</u>	
White Cream	56%
Blue Container	44%
Clean	44%
Moisturizing	44%

<u>Ponds Cleansing Cream(10)</u>	
Older Women	70%
Moisturizer	30%
Greasy	30%

APPENDIX IB-2 -- continued

Oil of Olay Cleansing Cream (7)

Prevents Wrinkles	57%
Moisturizes	57%
Look Younger	43%
Older Women	43%
Expensive	29%

Cleansing Cream (7)

White	71%
Face	57%
Bad Smell	43%
Greasy	43%
Moisturizes	43%

LAUNDRY DETERGENTWisk Laundry Detergent (9)

Liquid	56%
Red Container	44%
Clean	44%
Removes Stains	33%
Ring Around Collar	22%

Tide Detergent (11)

Orange Box	45%
Effective Cleaner	45%
Lacks Smell	27%
Not As Effective	27%
As Claimed	

Surf Laundry Detergent (8)

Bright Orange Box	50%
Clean	50%
Blue Liquid	38%
New Product	25%
Commercials	25%
Cheap	25%

Laundry Detergent (10)

Clean	50%
Cost	40%
Smells Fresh	40%
Removes Stains	30%

COMPUTERApple Computer (10)

Good Quality	30%
Children	30%
User Friendly	20%
Mouse	20%
McIntosh	20%

IBM Computer (10)

Good Quality	50%
Expensive	40%
Software	40%
Office/Professional	30%
Market Leader	20%
Reliable	20%
Big Blue	20%

Computer (10)

User Friendly	40%
Memory Size	30%
Expensive	30%
Useful	30%

APPENDIX IB-2 -- continued

AUTOMOBILE

<u>BMW Automobile (9)</u>	
Expensive	89%
Stylish/Flashy	56%
Prestigious	56%
German	33%
Well Made	33%
Yuppie	33%

<u>Ford Automobile (10)</u>	
American	40%
Big Cars	30%
Trucks	30%
Models	30%
Unreliable	20%
Dependable	20%
Good Cars	20%
New Generation	20%
Older People	20%

<u>Honda Automobile (7)</u>	
Japanese	86%
Small	71%
Sporty	57%
Reliable	43%
Quality	29%
Mid Price	29%

<u>Chrysler Automobile (11)</u>	
American	73%
Good Quality	27%
Iacocco	27%
Large Cars	27%
Competes Foreign	27%

<u>Automobile (10)</u>	
Transportation	50%
Convenience	30%

TOOTHPASTE

<u>Crest Toothpaste (7)</u>	
Tartar Control	57%
Gel	57%
Fluoride	43%
Cavity Fighter	43%
White Teeth	43%
Health/Hygiene	29%
Kids	29%
Toothbrush	29%
Mint Flavor	29%
Pump Container	29%

<u>Close-Up Toothpaste (11)</u>	
Fresh Breath	55%
Red Gel	45%
White Teeth	36%
Commercial Models	36%
Cinammon Flavor	27%
Kissing	27%

APPENDIX IB-2 -- continued

Colgate Toothpaste (7)

White	57%
Red Label	57%
White Teeth	43%
Winterfresh	29%
Gel	29%

AquaFresh Toothpaste (8)

Multi-Colored	100%
Mint Flavor	38%
Good Taste	25%
Pump Container	25%
Don't Like	25%
Fluoride	25%

Ultra Brite Toothpaste (11)

White Teeth	55%
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Toothpaste (10)

Taste	60%
Tartar Control	40%
Fresh Breath	40%
Dispenser	30%
Cavity Fighter	30%
Price	30%

FRUIT JUICEHawaiian Punch Juice (10)

Sweet	50%
Children	40%
Tropical Ad	40%
Drink Mixer	20%
Cherry	20%
Thirst Quencher	20%

Dole Fruit Juice (11)

Pineapple	55%
Kenny Rogers	36%
Good Taste	36%
Cans	27%
Sweet	27%
Tropical	27%

Welch's Fruit Juice (11)

Grape	64%
Purple Label	36%
Good Taste	27%
Natural	27%
Sweet	27%
Soda	27%

Hi-C Fruit Juice (11)

Can	27%
Healthy	27%
No Real Fruit	27%

Tropicana Fruit Juice (8)

Orange Juice	75%
Good Taste	50%
Expensive	25%
Frozen Concentrate	25%
Grapefruit	25%
Hat Girl In Ad	25%
Healthy	25%
Natural	25%

APPENDIX IB-2 -- continued

GYM SHOES

<u>New Balance Gym Shoes (9)</u>	
Running	56%
Well-Made	36%
Don't Know	22%
Support	22%
Symbol	22%
Tennis	22%

<u>Nike Gym Shoes (11)</u>	
Air Jordan	45%
Basketball	45%
Expensive	36%
Well Made	36%
Sport/Athlete	27%

<u>Gym Shoes (5)</u>	
Comfort	40%
Exercise	40%
Sports	40%
Style	40%
White	40%

<u>L.A.Gear Gym Shoes (11)</u>	
Commercials	45%
Fashion	45%
Girls	36%
Pink	36%
Poor Quality	27%

<u>Reebok Gym Shoes (8)</u>	
Good Quality	63%
Expensive	38%
Fad	38%
Comfort	25%
Korea	25%
Support	25%

BAR SOAP

<u>Dove Bar Soap (10)</u>	
Clean	50%
Soft/Mushy	44%
Greasy/Moisturize	40%
White	33%

<u>Ivory Bar Soap (9)</u>	
White	56%
99% Pure	56%
Bathroom/Tub	44%
Blue/White Label	33%
Clean	33%
Floats in Water	33%

<u>Caress Bar Soap (9)</u>	
Soft Skin	77%
Moisturizes	44%
Feminine	33%
Smell	33%

<u>Dial Bar Soap (11)</u>	
Orange/Yellow Bar	55%
"Aren't You Glad"	27%
Clean	27%
Commercials	27%
Lathers	27%

APPENDIX IB-2 -- continued

Irish Spring Bar Soap (8)

Green	75%
Strong Smell	50%
Commercials	38%
Fresh	38%
"Clean As Whistle"	20%

Bar Soap (9)

Smell	67%
Cleans	56%
Deodorant	44%

SHAMPOOClairol Shampoo (10)

Inexpensive	30%
Women	30%
Body	20%
Hair Coloring	20%
Long Hair	20%
Older Women	20%

Prell Shampoo (11)

Green	82%
Tube Container	45%
Inexpensive	36%
Models in Ads	36%
Bad For Hair	27%
Nice Smell	27%
Never Use	27%

Head & Shoulders Shampoo (11)

Dandruff	82%
Commercials	36%
White/Blue Bottle	27%

Suave Shampoo (7)

Economical	86%
Value Performance	57%

Shampoo (10)

Smell	50%
Clean Performance	40%
Price	40%
Bottles	30%
Conditions	30%

APPENDIX IB-2 -- continued

CEREAL

<u>Wheaties Cereal (12)</u>	
Energy	42%
Healthy	42%
Athletes	33%
Orange Box	33%

<u>Froot Loops Cereal (10)</u>	
Toucan Sam	90%
Colors/Flavors	80%
Circle Shape	60%
Breakfast	30%
Sugar	30%

<u>Cereal (10)</u>	
Breakfast	30%
Healthy	30%
Milk	30%
Oats	30%
Soggy	30%
Taste	30%

<u>Cheerios Cereal (10)</u>	
Bland/Plain	60%
Good Taste	50%
Healthy	40%
Oats	40%

<u>Grape Nuts Cereal (9)</u>	
Crunchy	56%
Healthy	44%

BEER

<u>Budweiser Beer (9)</u>	
Bud Bowl	33%
Cheap	33%
Lots Of Advertising	33%
Strong Flavor	33%

<u>Lowenbrau Beer (12)</u>	
Expensive	58%
Imported	58%
Strong Flavor	42%
Green Bottle	33%

<u>Beer (10)</u>	
Lite Brands	50%
Budweiser	40%
Bottle	30%
Domestic	30%

<u>Coors Beer (10)</u>	
Light Taste	70%
Mountain Water	50%
Cold	40%

<u>Michelob Beer (9)</u>	
Bitter Taste	22%
Lite Brand	22%
Mid-High Price	22%

APPENDIX IB-2 -- continued

POTATO CHIPSPringles Potato Chips (9)

Can	56%
Processed	33%
Regular	33%

Ruffles Potato Chips (12)

Ridges	50%
Good Taste	33%
Crunchy	25%
Good For Dipping	25%

Potato Chips (10)

Breakage	40%
Flavors	40%
Ruffled	40%
Salty	40%

GUMBig Red Gum (10)

Cinammon	70%
Kissing	40%
Red Wrapper	40%
Fresh Breath	30%
Good Taste	30%
Wrigley	30%

Bubble Yum Gum (10)

Bubbles	80%
Kids	70%
Flavors	70%
Sugary	50%

Trident Gum (12)

Sugarless	58%
Small	42%
No Cavities	33%
Fresh Breath	25%
Lasting Flavor	25%

Gum (10)

Breath Freshener	50%
Taste	50%
Chewing	40%
Lasting Flavor	30%
Sugarless	30%

SOFT DRINK7-Up Soft Drink (18)

Uncola	61%
Dot Commercial	33%
No Caffeine	33%
Clear	28%
Light	22%
Refreshing	22%

Pepsi Soft Drink (12)

Coke	42%
Sweet	42%
Morning Drink	25%
New Can	25%
Outdoor	25%

APPENDIX IB-2 -- continued

<u>Soft Drink (10)</u>	
Carbonated	50%
Taste	40%
Calories	30%
Coke	30%
Sweetness	30%

BREAD

<u>Nature's Own Bread (12)</u>	
Honey Wheat	67%
Healthy	50%

<u>Wonder Bread (10)</u>	
Soft	70%
White	60%
Fresh	40%

<u>Bread (10)</u>	
Fresh	40%
Calories	30%
Cost	30%
Nutrition	30%
Taste	30%
Wheat	30%

PEANUT BUTTER

<u>Peter Pan Peanut Butter (9)</u>	
Creamy	44%
Good Flavor	33%
Kids	33%

<u>Roddenbury Peanut (9)</u>	
Never Heard Of	67%

<u>Skippy Peanut Butter (12)</u>	
Buy Jif	42%
Creamy	25%
Good Taste	25%

<u>Peanut Butter (10)</u>	
Jelly	60%
Peanuts	60%
Crunchy	40%
Creamy	30%

APPENDIX IB-2 -- continued

BICYCLE

<u>Raleigh Bicycle (10)</u>	
Never Heard Of	50%

<u>Schwinn Bicycle (8)</u>	
Good Name	44%
High Quality	44%
Many Outlets	33%

<u>Bicycle (10)</u>	
Styling	50%
Dependability	40%
Light Weight	30%
10-Speed	30%

WINE

<u>Gallo Wine (9)</u>	
Vineyards	33%
Reasonable Price	33%

<u>Paul Masson Wine (12)</u>	
Cheap	50%
California	25%
Don't Drink	25%
White Zinfadel	25%

<u>Wine (10)</u>	
Good Taste	30%

PAIN RELIEVER

<u>Advil Pain Reliever (10)</u>	
Ibuprofen	40%
Quick Relief	40%
Headache Relief	30%
PMS Relief	30%
Strong	30%

<u>Bayer Pain Reliever (9)</u>	
Aspirin	56%
All-Purpose	33%
Headache Relief	33%

<u>Tylenol Pain Reliever (9)</u>	
Headache Relief	56%
Pain Relief	33%

<u>Pain Reliever (10)</u>	
Aspirin	50%
Headache Relief	50%
Tylenol	33%

APPENDIX IB-2 -- continued

TOPICAL FIRST AID REMEDY

<u>Bactine First Aid Remedy (9)</u>		<u>Neosporin First Aid (9)</u>	
Cuts/Sores	56%	Cuts/Sores	44%
Soothing/Cooling	44%	Prevents Germs	33%
Prevents Germs	33%		
Spray	33%		
<u>Topical First Aid Remedy (20)</u>			
Prevents Germs	30%		
Band-aids	25%		
Eases Pain	25%		

STOMACH REMEDY

<u>Pepto-Bismol Remedy (9)</u>		<u>Rolaids Stomach Remedy(9)</u>	
Pink	67%	Relieves Stomach	67%
Relieves Stomach	56%	Heartburn	44%
Coats Stomach	56%	Tablets	44%
Good Taste	56%	Chalky	33%
Effective	33%		
<u>Maalox Stomach Remedy(11)</u>		<u>Stomach Remedy (10)</u>	
Relieves Stomach	45%	Relieves Stomach	30%
Indigestion	45%	Desire Long-Last	30%
Liquid	27%		
Never Use	27%		
Soothes Stomach	30%		

SUNTAN LOTION

<u>Bain De Soleil Suntan (9)</u>		<u>Hawaiian Tropic (10)</u>	
Good Tan	56%	Deep Dark Tan	70%
St. Tropez	44%	Coconut Smell	50%
Gel Tube	33%	Girls In Ads	40%
High Price	33%	Beach	30%
Girls In Ads	33%	SPF	30%
<u>Suntan Lotion (10)</u>			
Prevents Sunburn	40%		
SPF Protection	40%		
Moisturizes	30%		

APPENDIX IB-2 -- continued

TOYS

<u>Fisher Price Toys (15)</u>	
Kids	53%
Safe	40%
Educational	27%
Bright Colors	27%
Toddlers	27%
Fun	27%

<u>Mattel Toys (15)</u>	
Kids	47%
Games	33%
Fun	27%
Red Logo	27%
Cars/Trucks	27%

<u>Toys (13)</u>	
Colorful	46%
Fun	69%
Durable	31%
Kids	31%

BATTERIES

<u>Energizer Batteries (15)</u>	
Bunny Commercial	60%
Long-Lasting	40%

<u>Duracell Batteries (15)</u>	
Coppertop	87%
Long-Lasting	60%
Battery Tester	40%

<u>Batteries (13)</u>	
Long-Lasting	38%
Rechargeable	31%

NONCARBONATED BEVERAGE

<u>Gatorade Drink (15)</u>	
Sports/Athlete	80%
Thirst Quencher	67%
Different Flavors	53%
Replenish Mineral	40%

<u>10-K Drink (15)</u>	
GatoradeSubstitute	80%
Thirst Quencher	33%
Sports/Athlete	27%

<u>Noncarbonated Drink (13)</u>	
Fruit Juice	54%
Water	54%
Healthy	38%

APPENDIX IB-2 -- continued

LUGGAGE

<u>Samsonite Luggage (15)</u>	
Durable	80%
Gorilla Ads	40%
Hard Shell	33%
Airport	27%
Unattractive	27%

<u>Amer Tourist Luggage (15)</u>	
Travel	40%
Durable	80%
Red, White, Blue Logo	20%

<u>Luggage (13)</u>	
Durable	46%
Travel	38%
Capacity	23%
Airport	23%
Lightweight	23%

PICNIC COOLERS

<u>Coleman Coolers (15)</u>	
Picnics	40%
Beach	33%
Beer	27%
Camping	27%
Drink	27%
Ice Chest	33%
Durable	27%
Fun	27%
Keep Things Cold	27%

<u>Playmate Coolers (15)</u>	
Beach	40%
Durable	33%
Beer	33%
Fun	27%
Food	27%
Different Sizes	27%

<u>Picnic Cooler (13)</u>	
Keeps Things Cold	38%
Portable Handle	38%
Beverages	38%
Food	31%
Ice	31%

AUTOMOBILE TIRES

<u>Michelin Tires (15)</u>	
Michelin Man	47%
Traction	27%
Baby Commercial	20%
Durable	20%

<u>Goodyear Tires (15)</u>	
Blimp	40%
Durable	33%
Brand Name	20%
Good Quality	20%

APPENDIX IB-2 -- continued

Automobile Tires (13)

Rubber	38%
Expensive	31%
Big	23%
Black	23%
Dependable	23%
Durable	23%
Traction	23%

PAPER TOWELSBounty Paper Towels (15)

Quicker Picker Up	67%
Absorbant	53%
Rosie in Ads	27%
Thick	20%
Clean-Up Spill	20%
Giant	20%

Viva Paper Towels (15)

Clean-Up Spill	40%
Designs	27%
Commodity Product	20%
Absorbant	20%
Quicker Picker Up	20%

Paper Towels (13)

Absorbant	54%
Designs	46%
Strong/Thick	46%
Clean-Up Spill	31%
Inexpensive	31%

APPENDIX IC-1
INSTRUCTIONS FOR EXPERIMENT 1 PRETEST 3

This experiment is interested in what consumers think about various products. We simply want to know your opinions about several brands and product classes.

All your responses in this experiment will be anonymous. However, it would be helpful if we knew your sex. Please circle your sex below:

Male

Female

Thank you for your cooperation in this experiment.

APPENDIX IC-1 --continued

Please rate your preference for the following brands on a scale from 1 to 9 where 1 indicates Dislike and 9 indicates Like.

1----|----|----|----|----|----|----|----9
Dislike Like

Indicate your preference by filling in the blank next to the brand with a number from 1 to 9.

- 1). _____ Seiko Watch
- 2). _____ Swatch Watch
- 3). _____ Rolex Watch
- 4). _____ Timex Watch
- 5). _____ Arrid Deodorant
- 6). _____ Secret Deodorant
- 7). _____ Sure Deodorant
- 8). _____ Right Guard Deodorant
- 9). _____ IBM Computer
- 10). _____ Compaq Computer
- 11). _____ Apple Computer
- 12). _____ Hewlett Packard Computer
- 13). _____ BMW Automobile
- 14). _____ Honda Automobile
- 15). _____ Ford Automobile
- 16). _____ Acura Automobile

APPENDIX IC-1 -- continued

Brands may be chosen as a means of self-expression. For such brands, what the product is and what its use says about you, the consumer, is central. Typically, brands with self-expressive images convey prestige or high status to other people. The primary purpose of purchasing a self-expressive brand is to convey this image to other people.

On the next two pages, you will be asked to rate the extent to which a brand has a self-expressive image on the following scale:

1----	----	----	----	----	----	----	-----9
Not At All							Very Much

Some product categories may contain mostly brands with no self-expressive image. For instance, brands of tomato sauce such as Hunts or Del Monte, do not convey an image to others and thus would rate a 1.

Other product categories may contain some brands with a high degree of self-expressive image and some brands with a low degree of self-expressive image. In the product category of pens, a Cross pen would receive a high rating since it conveys an image of luxury, but a Bic pen would receive a low rating since it primarily serves a functional purpose.

Other product categories may contain mostly brands with high self-expressive images. For instance, the purse product category has many designer brands such as Gucci or Liz Claiborne which would likely receive ratings of 9.

Please turn the page and begin.

APPENDIX IC-1 -- continued

Please rate the extent to which the following brands have a self-expressive image on a scale from 1 to 9 where 1 indicates Not At All and 9 indicates Very Much.

1----|----|----|----|----|----|----|----9
Not At All Very Much

Indicate your rating by filling in the blank next to the brand with a number from 1 to 9.

- 1). _____ Surf Laundry Detergent
- 2). _____ Wisk Laundry Detergent
- 3). _____ Cheer Laundry Detergent
- 4). _____ Tide Laundry Detergent
- 5). _____ Coppertone Suntan Lotion
- 6). _____ Hawaiian Tropic Suntan Lotion
- 7). _____ Sea & Ski Suntan Lotion
- 8). _____ Bain de Soleil Suntan Lotion
- 9). _____ Gallo Wine
- 10). _____ Inglenook Wine
- 11). _____ Paul Masson Wine
- 12). _____ Taylor California Wine
- 13). _____ Maalox Stomach Remedy
- 14). _____ Roloids Stomach Remedy
- 15). _____ Pepto-Bismol Stomach Remedy
- 16). _____ Alka-Seltzer Stomach Remedy

APPENDIX IC-2
FOCAL AND COMPARISON BRAND ASSOICATIONS

	<u>FOCAL BRAND</u>	<u>COMPARISON BRAND</u>
<u>Toothpaste</u>	<u>Close-Up</u> Cinnamon Dating Breath Freshening	<u>Crest</u> Dental Protection
<u>Bar Soap</u>	<u>Camay</u> Skin Softening	<u>Irish Spring</u> Smell/Scent
<u>Cereal</u>	<u>Cheerios</u> Bland Taste Healthy Grains	<u>Froot Loops</u> Sweet Color/Flavor Kids
<u>Beer</u>	<u>Coors</u> Light Taste Mountain Springs	<u>Budweiser</u> Logo High Alcohol
<u>Computer</u>	<u>Apple</u> Kids User Friendly	<u>IBM</u> Technological Electronics
<u>Laundry Detergent</u>	<u>Wisk</u> Stain Fighting	<u>Tide</u> Clean Effectiveness
<u>Gum</u>	<u>Bubble Yum</u> Bubbles Kids Sugary Flavors	<u>Big Red</u> Breath Freshener Cinammon
<u>Potato Chips</u>	<u>Pringles</u> Can Processed	<u>Ruffles</u> Ruffled Salt

APPENDIX ID
INSTRUCTIONS FOR EXPERIMENT 1 PRETEST 4

This section asks for your assistance in helping a firm decide where to expand. Given that a firm makes a certain product, we are interested in what other product categories would be possible areas for expansion.

For instance, a firm makes baseballs. Other potential product categories for the firm to enter might be footballs, gloves, bats, uniforms, bases, baseball cards, or hotdogs.

On the following pages you will be given the name {of a brand in} a product category (e.g., {Spalding} Baseball) asked to list other product categories in which the firm could potentially decide to sell. You will be given one minute to list your responses. The experimenter will keep track of time.

Please do not begin until you are told to do so.

APPENDIX IE
INSTRUCTIONS FOR EXPERIMENT 1 MANIPULATION CHECK 1

Please rate the degree to which the following attribute is relevant in various product categories on a scale from 1 to 9 where 1 indicates Not At All Relevant and 9 indicates Very Relevant.

1---|---|---|---|---|---|---|---9
Not At All Very
Relevant Relevant

Indicate your rating by filling in the blank next to the product category with a number from 1 to 9.

- 1) Please rate the degree to which the attribute SKIN SOFTENING is relevant in the following product categories.

1---|---|---|---|---|---|---|---9
Not At All Very
Relevant Relevant

- a.) _____ Deodorant
b.) _____ Moisturizer
c.) _____ Cologne
d.) _____ Cleansing Cream

- 2) Please rate the degree to which the attribute SWEETNESS is relevant in the following product categories.

1---|----|-----|-----|-----|-----|-----|-----9
Not At All Very
Relevant Relevant

- a.) _____ Lollipops
b.) _____ Oatmeal
c.) _____ Toasted Pastry
d.) _____ Waffles

APPENDIX IF
INSTRUCTIONS FOR EXPERIMENT 1 MANIPULATION CHECK 2

In this section, you will be asked how much you feel brands possess certain features. Specifically, you will be asked to rate how strongly you associate Attribute X with certain brands on the following 9 point scale where 1 indicates Not At All and indicates Very Strongly.

1---|---|---|---|---|---|---|---9
Not At All Very Strongly

Please place your numerical rating for each brand in the appropriate blank.

1) How strongly do you associate the attribute Skin Softening with the following brands of bar soap:

Irish Spring _____
Ivory _____
Dial _____
Camay _____

2) How strongly do you associate the attribute Technological with the following brands of computers:

IBM _____
Compaq _____
Apple _____
HewlettPackard _____

3) How strongly do you associate the attribute Bland with the following brands of cereal:

Froot Loops _____
Wheaties _____
Cheerios _____
Grape Nuts _____

APPENDIX II
DETAILED LISTING OF TASKS FOR EXPERIMENT 1

APPENDIX IIA-1
STIMULUS SET FOR EXPERIMENT 1

		Extension 1	Extension 2
<u>Toothpaste</u>			
1) Close-Up ¹	Set 1	Mouthwash	Dental Floss
2) Crest	Set 2	Breath Mint	Toothbrush
<u>Cereal</u>			
1) Cheerios	Set 1	Oatmeal	Toasted Pastry
2) Froot Loops	Set 2	Waffles	Lollipop
<u>Soap</u>			
1) Camay	Set 1	Moisturizer	Deodorant
2) Irish Spring	Set 2	Cleansing Cream	Cologne
<u>Computer</u>			
1) Apple	Set 1	Video Games	Stereo
2) IBM	Set 2	Instruction Tape	Cellular Phone
<u>Beer</u>			
1) Coors	Set 1	Wine Cooler	Mug
2) Budweiser	Set 2	Bottled Water	Scotch
<u>Filler: Laundry Detergent</u>			
Wisk	Set 1	Carpet Cleaner	Fabric Softener
Tide	Set 1	Stain Remover	Dishwash Deterg

¹The first brand in each product category is the focal brand. The focal brand's specific association is relevant in Extension Category 1, while the comparison brand's association is relevant in Extension Category 2.

APPENDIX IIA-2
ORDER OF PRESENTATION OF PRODUCT CATEGORIES

	POSITION					
	1	2	3	4	5	6

<u>ORDER 1</u>	1	2	3	4	4	6
<u>ORDER 2</u>	2	4	1	6	3	5
<u>ORDER 3</u>	3	1	5	2	6	4
<u>ORDER 4</u>	4	6	2	5	1	3
<u>ORDER 5</u>	5	3	6	1	4	2
<u>ORDER 6</u>	6	5	4	3	2	1

APPENDIX IIA-3
PROCEDURE FOR EXPERIMENT 1

- 1) Introduction Instructions
- 2) Practice Set
- 3) Rating of Brand Extension from Product Category 1
- 4) Rating of Brand Extension from Product Category 1
- 5) Rating of Brand Name from Product Category 1
- 6) Rating of Brand Extension from Product Category 2
- 7) Rating of Brand Extension from Product Category 2
- 8) Rating of Brand Name from Product Category 2
- 9) Rating of Brand Extension from Product Category 3
- 10) Rating of Brand Extension from Product Category 3
- 11) Rating of Brand Name from Product Category 3
- 12) Rating of Brand Extension from Filler Product Category
- 13) Rating of Brand Extension from Filler Product Category
- 14) Rating of Brand Name from Filler Product Category
- 15) Rating of Brand Extension from Product Category 4
- 16) Rating of Brand Extension from Product Category 4
- 17) Rating of Brand Name from Product Category 4
- 18) Rating of Brand Extension from Product Category 5
- 19) Rating of Brand Extension from Product Category 5
- 20) Rating of Brand Name from Product Category 5
- 21) Preference Ranking of Twelve Extension Product Categories

APPENDIX IIB-1
INTRODUCTION TO EXPERIMENT 1

This study is interested in your reactions to different possible extensions of brand names. A brand extension occurs when a known brand name is used in a new product category. For instance, Planters recently extended from peanuts to also make popcorn. Another example of a brand name that has been extended is Sunkist. Sunkist which produces fruit extended into soft drinks.

In this study, the products you will evaluate are potential brand products and do not currently exist. We simply want to know your thoughts and feelings about these possible brand extensions. Additionally, you will be asked to provide some background information on existing brand products.

There are no correct answers, so please answer honestly. All your responses in this experiment will be anonymous. However, it would be helpful if we knew your sex. Please circle your sex below:

Male

Female

Thank you for your cooperation.

APPENDIX IIB-2
INSTRUCTIONS FOR BRAND EXTENSION EVALUATION

On this page, you will be asked to answer several questions about a potential product. We are simply interested in your opinions. Indicate your ratings by placing a number from 1 to 9 in the provided blank.

- 1) Please rate your overall evaluation of Ford Motor Oil relative to other brands in the Motor Oil product category using the following scale.

Rating: _____
 1 _____ 9
 One of the worst One of the best

- 2) Please rate your preference for Ford Motor Oil using the following scale.

Rating: _____
 1 _____ 9
 Dislike Like

- 3) We are interested in your thoughts about Ford Motor Oil. These thoughts may include physical product features, product benefits, usage situations, or any other associations you have. Please be specific. List your associations in the space below.

APPENDIX IIB-3
INSTRUCTIONS FOR BRAND NAME RATINGS

On this page, you will be asked to answer several questions about an existing product. We are simply interested in your opinions. Indicate your ratings by placing a number from 1 to 9 in the provided blank.

- 1) Please rate your preference for Ford Automobiles on the following scale.

Rating: _____
 1 _____ 9
 Dislike Like

- 2) Please rate your familiarity with Ford Automobiles on the following scale. Familiarity is your awareness of the product.

Rating: _____
 1 _____ 9
 Never Heard Of Very Aware Of

- 3) Please rate the degree to which Ford Automobiles are bought to convey an image of prestige or status to other people on the following scale.

Rating: _____

1 _____ 9

Not At All Very Much

APPENDIX IIB-3
INSTRUCTIONS FOR BRAND EXTENSION RANKING TASK

In this next section you will be asked to rank order your preference for brands in a product category. One of the brands will be an existing brand in that product category and the other two brands will be potential brand extensions into that category. Place a 1 in the blank that is your most preferred alternative, a 2 next to your second preference, and a 3 next to your least preferred alternative.

You may now work at your own pace. Please turn the page and begin.

APPENDIX IIB-3 -- continued

Please rank order your preference for brands in the following product categories where

- 1= Most Preferred Brand
- 2= Second Most Preferred Brand
- 3= Least Preferred Brand

1) Video Games

_____ Apple
_____ IBM
_____ Nintendo

2) Oatmeal

_____ Cheerios
_____ Froot Loops
_____ Quaker Oats

3) Wine Coolers

_____ Bartles & James
_____ Budweiser
_____ Coors

4) Deodorant

_____ Camay
_____ Irish Spring
_____ Sure

APPENDIX IIC-1
 ERROR TERMS USED TO TEST HYPOTHESIZED EFFECTS
 ALL FACTORS TREATED AS RANDOM

NORMAL F RATIOS

INTERACTION OF EXTENSION AND BRAND NESTED IN CATEGORY:

$$F = \frac{MS_{\text{EXTEN*BRAND(CAT)}}}{MS_{\text{EXTEN*BRAND*SET(CAT)}}}$$

INTERACTION OF EXTENSION AND SET NESTED IN CATEGORY:

$$F = \frac{MS_{\text{EXTEN*SET(CAT)}}}{MS_{\text{EXTEN*BRAND*SET(CAT)}}}$$

INTERACTION OF EXTENSION, BRAND, AND SET NESTED IN CATEGORY:

$$F = \frac{MS_{\text{EXTEN*BRAND*SET(CAT)}}}{MS_{\text{EXTEN*SUB(BRAND*SET)}}}$$

APPENDIX IIC-2
ERROR TERMS USED TO TEST HYPOTHESIZED EFFECTS
ALL FACTORS TREATED AS RANDOM

QUASI F RATIOS

MAIN EFFECT OF EXTENSION NESTED IN CATEGORY:

$$F = \frac{MS_{EXT(CAT)}}{MS_{EXT*BRAND(CAT)} + MS_{EXT*SET(CAT)} - MS_{EXT*BRAND*SET(CAT)}}$$

MAIN EFFECT OF BRAND NESTED IN CATEGORY:

$$F = \frac{MS_{BRAND(CAT)}}{MS_{EXT*BRAND(CAT)} + MS_{BRAND*SET(CAT)} - MS_{EXT*BRAND*SET(CAT)}}$$

MAIN EFFECT OF CATEGORY:

$$F = \frac{MS_{CAT}}{MS_{EXT(CAT)} + MS_{BRAND(CAT)} + MS_{SET(CAT)} + MS_{EXT*BRAND*SET(CAT)} - MS_{EXT*BRAND(CAT)} - MS_{EXT*SET(CAT)} - MS_{BRAND*SET(CAT)}}$$

MAIN EFFECT OF SET NESTED IN CATEGORY:

$$F = \frac{MS_{SET(CAT)}}{MS_{EXT*SET(CAT)} + MS_{BRAND*SET(CAT)} - MS_{EXT*BRAND*SET(CAT)}}$$

APPENDIX III

DETAILED LISTING OF TASKS FOR EXPERIMENT 2

APPENDIX IIIA-1
BRAND-SPECIFIC ASSOCIATIONS OF FOCAL BRANDS
IN EXPERIMENT 2 PRETEST

CLOSE-UP TOOTHPASTE:	Breath Freshening, Cinammon, Dating
FROOT LOOPS CEREAL:	Flavors, Kids, Sweet
IRISH SPRING SOAP:	Scent
BUBBLE YUM GUM:	Sweet, Flavors, Kids
NIKE GYM SHOES:	Athletics, Sports
TIMEX WATCH:	Durability, Reliability
MICHELIN TIRES:	Safety

APPENDIX IIIA-2
OVERALL PRODUCT CATEGORY SIMILARITY JUDGMENTS
IN EXPERIMENT 2 PRETEST

Please rate how similar the following product categories are to each other on the following scale from 1 to 9 where 1 indicates Not At All Similar and 9 indicates Very Similar.

1-----|-----|-----|-----|-----|-----|-----|-----9
Not At All Similar Very Similar

Indicate your answer by filling in the blank next to the question with a number from 1 to 9.

- 1) _____ How similar are soap and bubble bath?
- 2) _____ How similar are soap and kitty litter?
- 3) _____ How similar are soap and room freshener?
- 4) _____ How similar are soap and liquid hand soap?
- 5) _____ How similar are soap and shoe deodorizer?
- 6) _____ How similar are soap and household cleaner?
- 7) _____ How similar are gym shoes and ballet shoes?
- 8) _____ How similar are gym shoes and exercise bikes?
- 9) _____ How similar are gym shoes and pain relieving rub?
- 10) _____ How similar are gym shoes and ladies canvas gym shoes?
- 11) _____ How similar are gym shoes and wingtips?
- 12) _____ How similar are gym shoes and thirst quencher?
- 13) _____ How similar are cereal and waffles?
- 14) _____ How similar are cereal and lollipops?
- 15) _____ How similar are cereal and chewable vitamins?

APPENDIX IIIA-3 -- continued

Please rate how similar the following product categories are to each other in terms of the given characteristics on the following scale from 1 to 9 where 1 indicates Not At All Similar and 9 indicates Very Similar.

1----|----|----|----|----|----|----|----9
 Not At All Similar Very Similar

Indicate your answer by filling in the blank next to each type of similarity with a number from 1 to 9.

1)How similar are soap and room freshener in terms of:

_____ Physical features
 _____ Usage situation
 _____ Benefits provided

2)How similar are soap and liquid hand soap in terms of:

_____ Physical features
 _____ Usage situation
 _____ Benefits provided

3)How similar are gym shoes and thirst quencher in terms of:

_____ Physical features
 _____ Usage situation
 _____ Benefits provided

4)How similar are gym shoes and ladies canvas gym shoes in terms of:

_____ Physical features
 _____ Usage situation
 _____ Benefits provided

5)How similar are cereal and waffles in terms of:

_____ Physical features
 _____ Usage situation
 _____ Benefits provided

6)How similar are cereal and popsicles in terms of:

_____ Physical features
 _____ Usage situation
 _____ Benefits provided

APPENDIX IIIA-4
IMPORTANCE OF ASSOCIATIONS IN EXTENSION PRODUCT CATEGORIES

In this next section, you will be asked to judge how important various attributes are in different product categories. For each attribute, there will be a list of product categories. Sometimes this attribute will be very important in a product category and sometimes this attribute will be totally irrelevant for a product category.

Your task will be to rate how important an attribute is for a product category on the following 9 point scale where 1 indicates Not At All Important and 9 indicates Very Important.

1----	-----	-----	-----	-----	-----	-----	-----	-----9
Not At All Important				Very Important				

APPENDIX IIIA-4 -- continued

Please rate how important the following attributes are for a product category on a 9 point scale where 1 indicates Not At All Important and 9 indicates Very Important.

1----|----|----|----|----|----|----|----9
 Not At All Important Very Important

Indicate your answer by filling in the blank next to each product category with a number from 1 to 9.

1)How important is the attribute athlete in the following product categories:

_____ Ballet Shoes
 _____ Thirst Quencher
 _____ Ladies Canvas Gym Shoes
 _____ Pumps
 _____ Wingtips
 _____ Exercise Bike
 _____ Loafers
 _____ Pain Relieving Rub

2)How important is the attribute smell in the following product categories:

_____ Room Freshener
 _____ Kitty Litter
 _____ Shampoo
 _____ Liquid Hand Soap
 _____ Bubble Bath
 _____ Shoe Deodorizer
 _____ Household Cleaner

3)How important is the attribute reliability in the following product categories:

_____ Pocket Watch
 _____ Alarm System
 _____ Garage Door Opener
 _____ Bracelet
 _____ Outdoor Thermometer
 _____ Calculator
 _____ Radar Detector

APPENDIX IIIB-1
MEANS OF SIMILARITY RATINGS

TYPE OF SIMILARITY

<u>CATEGORY PAIR</u>	<u>OVERALL</u>	<u>PHYSICAL</u>	<u>USAGE</u>	<u>BENEFIT</u>
TOOTHPASTE vs.				
A) Breath Spray	5.24	1.91	6.38	6.38
B) Tartar Control Tpaste	7.97	8.85	8.32	7.56
C) Tooth Pain Reliever	2.67	3.45	3.00	3.12
D) Gum	3.03	1.82	5.26	4.47
E) Toothbrush	4.29	1.18	7.97	7.59
F) Mouthwash	5.88	1.76	6.94	6.85
G) Denture Cleaner	4.12	4.00	5.85	6.88
H) Breath Mint	4.15	1.65	5.47	5.94
I) DatingService	1.68	1.15	2.53	2.71
CEREAL vs.				
A) Waffles	4.59	2.50	8.03	8.21
B) Lollipops	1.44	1.26	2.18	2.32
C) Bagels	3.94	2.24	7.73	8.09
D) Corn Flakes Cereal	8.47	8.65	8.82	8.76
E) Chewable Vitamins	2.24	1.68	3.59	4.18
F) Crayons	1.24	1.00	1.09	1.06
G) Hot Cereal	7.97	6.71	8.65	8.65
H) Fruit Roll Snacks	2.32	1.53	3.65	4.03
I) Popsicles	1.59	1.10	3.38	3.86
GUM vs.				
A) Jelly	2.18	1.73	1.70	1.67
B) Sugarless Gum	8.15	8.70	8.67	7.52
C) Breath Mint	6.24	3.55	7.79	7.94
D) Powdered Drink Mix	1.53	1.15	1.42	1.39
E) Child Toothpaste	2.26	1.58	2.73	2.45
F) Spearmint Gum	8.38	8.70	8.67	8.76
G) Popsicles	2.21	1.24	2.88	2.58

APPENDIX IIIB-1 -- continued

<u>CATEGORY PAIR</u>	<u>TYPE OF SIMILARITY</u>			
	<u>OVERALL</u>	<u>PHYSICAL</u>	<u>USAGE</u>	<u>BENEFIT</u>
SOAP vs.				
A) Moisturizing Soap	7.71	7.91	8.09	7.73
B) Kitty Litter	1.38	1.15	1.70	2.72
C) Room Freshener	2.15	1.73	2.39	3.61
D) Bubble Bath	5.65	4.06	5.67	5.70
E) Shampoo	6.41	4.06	6.52	6.85
F) Shoe Deodorizer	1.97	1.45	2.79	3.55
G) Liquid Hand Soap	8.21	3.86	8.76	8.90
GYM SHOES vs.				
A) Ballet Shoes	3.97	4.00	3.33	5.03
B) Exercise Bikes	2.79	1.55	5.36	4.76
C) Pain Relief Rub	1.82	1.27	2.36	2.61
D) Loafers	4.03	4.85	3.82	4.73
E) Sport Watch	2.41	1.18	4.32	3.18
F) Wingtips	3.64	4.07	3.00	3.57
G) Thirst Quencher	2.68	1.39	4.04	3.36
H) Pumps	3.68	3.79	3.46	3.71
I) Ladies Canvas Gyms	7.97	7.82	8.41	8.41
WATCH vs.				
A) Alarm System	2.21	1.54	1.89	2.21
B) Garage Door Opener	1.35	1.23	1.42	1.85
C) Pocket Watch	7.29	7.58	8.62	8.81
D) Radar Detector	1.91	1.50	1.38	1.73
E) Outdoor Thermometer	1.88	1.77	1.31	1.73
F) Calculator	2.38	2.58	1.88	2.23
G) Bracelet	4.62	5.39	3.89	3.68
AUTOMOBILE TIRES vs.				
A) Baby Car Seat	2.41	1.04	2.38	2.35
B) Bike Tires	5.18	6.12	5.80	7.32
C) Tire Gauge	3.88	1.16	5.68	4.12
D) Tricycles	2.24	1.68	2.40	2.64
E) Swingset	1.56	1.48	1.24	1.36
F) Car Mat	2.56	1.48	2.92	2.60

APPENDIX IIIB-2
RELEVANCE OF ASSOCIATIONS IN EXTENSION CATEGORIES

<u>ASSOCIATION</u>	<u>IMPORTANCE IN EXTENSION CATEGORY</u>	
1) FRESH BREATH	Gum	7.23
	Tooth Relief	1.42
	Denture Cleaner	3.40
	Breath Mint	8.90
	Breath Spray	8.95
	Tartar Control Tpaste	6.57
	Mouthwash	8.86
	Dating Service	5.19
2) FLAVORS	Candy Bar	8.42
	Spearmint Gum	8.76
	Bagels	6.95
	Corn Flakes Cereal	6.67
	Jelly	8.10
	Hot Cereal	6.57
	Lollipops	8.19
	Chewable Vitamins	5.62
	Crayons	1.10
	Fruit Roll Snack	7.52
	Powdered Drink Mix	7.71
	Waffles	6.67
	Sugarless Gum	7.71
	Popsicles	8.29
	Child Toothpaste	7.33
3) SMELL	Room Freshener	8.96
	Kitty Litter	7.97
	Shampoo	7.03
	Liquid Hand Soap	6.72
	Bubble Bath	7.10
	Shoe Deodorizer	8.24
	Household Cleaner	7.48
4) ATHLETE	Ballet Shoes	5.52
	Thirst Quencher	7.59
	Ladies Canvas Gyms	6.56
	Pumps	3.62
	Wingtips	2.00
	Exercise Bike	7.10
	Loafers	2.31
	Pain Relief Rub	6.93

APPENDIX IIIB-2 -- continued

<u>ASSOCIATION</u>	<u>IMPORTANCE IN EXTENSION CATEGORY</u>	
5) DURABILITY	Pocket Watch	6.90
	Alarm System	8.00
	Garage Door Opener	8.09
	Bracelet	6.43
	Outdoor Thermometer	7.10
	Calculator	7.90
	Radar Detector	7.95
6) SAFETY	Bike Tires	7.86
	Baby Car Seat	8.95
	Car Mat	1.95
	Swingset	8.52
	Tire Gauge	5.24
	Tricycle	7.38
	Calculator	1.90
7) COLOR	Jelly	5.83
	Hot Cereal	3.33
	Lollipop	7.56
	Chewable Vitamin	5.28
	Candy Bar	5.06
	Spearmint Gum	4.06
	Bagels	3.56
	Corn Flakes Cereal	3.28
	Sugarless Gum	4.50
	Popsicles	7.33
	Child Toothpaste	6.94
	Waffles	3.67
	Crayons	8.89
	Fruit Roll	7.06
	Powdered Drink Mix	5.44
8) CINAMMON	Breath Spray	6.44
	Tartar Control Tpaste	3.67
	Mouthwash	6.06
	Dating Service	1.94
	Gum	7.39
	Tooth Pain Relief	2.72
	Denture Cleaner	3.47
	Breath Mints	7.39

APPENDIX IIIB-2 -- continued

<u>ASSOCIATION</u>	<u>IMPORTANCE IN EXTENSION CATEGORY</u>	
9) RELIABILITY	Tire Guage	8.39
	Tricycle	6.67
	Calculator	8.22
	Bike Tire	8.11
	Baby Car Seat	8.61
	Car Mat	4.11
	Swingset	7.00
	Pocket Watch	8.48
	Alarm System	8.72
	Garage Door Opener	8.24
	Bracelet	5.28
	Outdoor Thermometer	6.86
	Calculator	8.59
	Radar Detector	8.41
10) KIDS	Candy Bar	7.43
	Spearmint Gum	5.00
	Bagels	3.29
	Corn Flakes Cereal	3.86
	Jelly	6.43
	Hot Cereal	5.07
	Lollipops	8.86
	Chewable Vitamins	7.93
	Crayons	8.93
	Fruit Roll Snack	8.50
	Powdered Drink Mix	6.21
	Waffles	4.43
	Sugarless Gum	4.36
	Popsicles	8.57
	Child Toothpaste	8.43
11) SPORTS	Wingtips	2.14
	Exercise Bike	7.38
	Loafers	1.97
	Pain Relief Rub	7.03
	Ballet Shoe	5.21
	Thirst Quencher	7.59
	Ladies Canvas Gyms	7.41
	Pumps	3.79

APPENDIX IIIB-2 -- continued

12) DATING	Mouthwash	5.64
	Dating Service	7.43
	Gum	4.71
	Breath Spray	5.93
	Tartar Control Tpaste	4.36
	Tooth Pain Relief	2.14
	Denture Cleaner	2.21
	Breath Mints	6.21

ASSOCIATIONIMPORTANCE IN EXTENSION CATEGORY

13) SWEETNESS	Jelly	7.75
	Hot Cereal	4.33
	Lollipops	8.92
	Chewable Vitamins	7.17
	Candy Bar	8.58
	Spearmint Gum	7.08
	Bagel	2.92
	Corn Flake Cereal	2.58
	Sugarless Gum	6.75
	Popsicles	8.58
	Child Toothpaste	6.75
	Waffles	3.83
	Crayons	1.00
	Fruit Roll Snack	7.41
	Powdered Drink Mix	6.17

APPENDIX IIIB-3
FOCAL AND COMPARISON BRANDS IN EXPERIMENT 2

ORIGINAL PRODUCT CATEGORY	FOCAL BRAND	COMPARISON BRAND
CEREAL	FROOT LOOPS	CHEERIOS
SOAP	IRISH SPRING	CAMAY
GYM SHOE	NIKE	REEBOK
WATCH	TIMEX	SEIKO

APPENDIX III C-1
 LATIN SQUARE DESIGN FOR SIMILARITY AND EXTENSION PRODUCT
 CATEGORY IN EXPERIMENT 2

		EXTENSION PRODUCT CATEGORY			
		1	2	3	4

SIMILARITY	1	1	2	3	4
	2	2	4	1	3
	3	3	1	4	2
	4	4	3	2	1

APPENDIX IIIC-2
STIMULUS SET FOR EXPERIMENT 2

FACTOR A = SIMILARITY
FACTOR B = EXTENSION PRODUCT CATEGORY
FACTOR C = BRAND

	AB11	AB22	AB33	AB44
SEQUENCE 1	C1	C1	C2	C2
SEQUENCE 2	C1	C2	C1	C2
SEQUENCE 3	C2	C1	C2	C1
SEQUENCE 4	C2	C2	C1	C1

	AB12	AB24	AB31	AB43
SEQUENCE 1	C1	C1	C2	C2
SEQUENCE 2	C1	C2	C1	C2
SEQUENCE 3	C2	C1	C2	C1
SEQUENCE 4	C2	C2	C1	C1

	AB13	AB21	AB34	AB42
SEQUENCE 1	C1	C1	C2	C2
SEQUENCE 2	C1	C2	C1	C2
SEQUENCE 3	C2	C1	C2	C1
SEQUENCE 4	C2	C2	C1	C1

	AB14	AB23	AB32	AB41
SEQUENCE 1	C1	C1	C2	C2
SEQUENCE 2	C1	C2	C1	C2
SEQUENCE 3	C2	C1	C2	C1
SEQUENCE 4	C2	C2	C1	C1

APPENDIX IIID-1
INSTRUCTIONS FOR EXPERIMENT 2 EVALUATIVE RATINGS

On this page, you will be asked to answer several questions about a potential product. We are simply interested in your opinions. Indicate your ratings by placing a number from 1 to 9 in the provided blank.

- 1) Please rate how desirable Froot Loops Waffles would be using the following scale.

Rating: _____
 1 9
 Undesirable Desirable

- 2) Please rate your preference for Froot Loops Waffles using the following scale.

Rating: _____
 1 _____ 9
 Dislike Like

- 3) We are interested in your thoughts about Froot Loops Waffles. These thoughts may include physical product features, product benefits, usage situations, or any other associations you have. Please be specific. List your associations in the space below.

APPENDIX IIID-2
INSTRUCTIONS FOR EXPERIMENT 2 FIT RATINGS

On this page, you will be asked to answer several questions about a potential product. We are simply interested in your opinions. Indicate your ratings by placing a number from 1 to 9 in the provided blank.

- 1) Please rate the extent to which Froot Loops Waffles fits with your knowledge of the brand name.

Rating: _____
 1 _____ 9
 Not At All Very Much

- 2) Please rate how appropriate an extension Froot Loops Waffles is for the brand name.

Rating: _____
 1 _____ 9
 Not Appropriate Very Appropriate

- 3) We are interested in your thoughts about Froot Loops Waffles. These thoughts may include physical product features, product benefits, usage situations, or any other associations you have. Please be specific. List your associations in the space below.

APPENDIX IIID-3
INSTRUCTIONS FOR EXPERIMENT 2 COVARIATE RATINGS

In these next sections, we are interested in some simple background information. We would like to know your opinions about existing brand products. There will be several different questions pertaining to these brands in their current product categories.

Please turn the page to continue.

APPENDIX IIID-3 -- continued

The first question asks you to rate your preference for various brands on a scale from 1 to 9 where 1 indicates Dislike and 9 indicates Like.

1----|----|----|----|----|----|----|----9
Dislike Like

Your liking for the brand is a general preference relative to all other brands, not just relative to other brands in the same product category. Thus, you may like most brands in one product category, a few in another product category, and none in another product category.

Please turn the page to continue.

APPENDIX IIID-3 -- continued

Please rate your preference for the following brands on a scale from 1 to 9 where 1 indicates Dislike and 9 indicates Like.

1-----|-----|-----|-----|-----|-----|-----|-----9
Dislike Like

Indicate your preference by filling in the blank next to the brand with a number from 1 to 9.

- 1) _____ Rolex Watch
- 2) _____ Timex Watch
- 3) _____ Swatch Watch
- 4) _____ Seiko Watch
- 5) _____ Irish Spring Soap
- 6) _____ Ivory Soap
- 7) _____ Camay Soap
- 8) _____ Dial Soap
- 9) _____ Total Cereal
- 10) _____ Froot Loops Cereal
- 11) _____ Grape Nuts Cereal
- 12) _____ Cheerios Cereal
- 13) _____ Nike Gym Shoes
- 14) _____ Reebok Gym Shoes
- 15) _____ L.A. Gear Gym Shoes
- 16) _____ Addidas Gym Shoes

APPENDIX IIID-3 -- continued

The next question asks you to rate how familiar you are with various brands on a scale from 1 to 9 where 1 indicates Unfamiliar and 9 indicates Familiar.

1----|----|----|----|----|----|----|----9
 Unfamiliar Familiar

Your familiarity with a brand means how aware you are of the brand name, not necessarily that you use the brand.

Again, your rating is a general familiarity relative to all other brands, not just relative to other brands in the same product category. Thus, you may be familiar with all brands in one product category, a few in another product category, and none in another product category.

Please turn the page to continue.

APPENDIX IIID-3 -- continued

Please rate your familiarity for the following brands on a scale from 1 to 9 where 1 indicates Unfamiliar and 9 indicates Familiar.

1----|----|----|----|----|----|----|----9
Unfamiliar Familiar

Indicate your familiarity by filling in the blank next to the brand with a number from 1 to 9.

- 1) _____ Rolex Watch
- 2) _____ Timex Watch
- 3) _____ Swatch Watch
- 4) _____ Seiko Watch
- 5) _____ Irish Spring Soap
- 6) _____ Ivory Soap
- 7) _____ Camay Soap
- 8) _____ Dial Soap
- 9) _____ Total Cereal
- 10) _____ Froot Loops Cereal
- 11) _____ Grape Nuts Cereal
- 12) _____ Cheerios Cereal
- 13) _____ Nike Gym Shoes
- 14) _____ Reebok Gym Shoes
- 15) _____ L.A. Gear Gym Shoes
- 16) _____ Addidas Gym Shoes

APPENDIX IIID-3 -- continued

This next question is concerned with the breadth of different product categories that a brand name offers. You will be asked to judge whether a brand name brings a wide variety of products to mind or only one product comes to mind on the following scale:

1----	----	----	----	----	----	----	-----9
One	Product						Extremely Wide Variety of Products

When completing this question you are to think of variety in terms of different product categories, not variety in terms of different flavors or sizes in the same product category. For instance, when asked about Planters' variety, you should think about peanuts and popcorn, not whether they have dry roasted and honey roasted peanuts.

Brands like Fisher Price which offer a wide range of products such as toys, car seats, clothes, and baby shampoo would likely receive a high rating. On the other hand, brands like Pepto-Bismol that only offer a single product (stomach remedy) would likely receive a low rating.

Please turn the page and continue.

APPENDIX IIID-3 -- continued

When you hear the brand name does one product or a wide variety of products come to mind?

1----- ----- ----- ----- ----- ----- ----- -----9
One Product Extremely Wide Variety of Products

Indicate your judgment by filling in the blank next to the brand with a number from 1 to 9.

- 1) _____ Rolex Watch
- 2) _____ Timex Watch
- 3) _____ Swatch Watch
- 4) _____ Seiko Watch
- 5) _____ Irish Spring Soap
- 6) _____ Ivory Soap
- 7) _____ Camay Soap
- 8) _____ Dial Soap
- 9) _____ Total Cereal
- 10) _____ Froot Loops Cereal
- 11) _____ Grape Nuts Cereal
- 12) _____ Cheerios Cereal
- 13) _____ Nike Gym Shoes
- 14) _____ Reebok Gym Shoes
- 15) _____ L.A. Gear Gym Shoes
- 16) _____ Addidas Gym Shoes

APPENDIX IIID-3 -- continued

Brands may be chosen as a means of self-expression. For such brands, what the product is and what its use says about you, the consumer, is central. Typically, brands with self-expressive images convey prestige or high status to other people. The primary purpose of purchasing a self-expressive brand is to convey this image to other people.

On the next two pages, you will be asked to rate the extent to which a brand has a self-expressive image on the following scale:

	1----	-----	-----	-----	-----	-----	-----	-----	9
Not	At All								Very Much

Some product categories may contain mostly brands with no self-expressive image. For instance, brands of tomato sauce such as Hunts or Del Monte, do not convey an image to others and thus would rate a 1.

Other product categories may contain some brands with a high degree of self-expressive image and some brands with a low degree of self-expressive image. In the product category of automobiles, a Rolls Royce would receive a high rating since it conveys an image of luxury, but a Ford Escort would receive a low rating since it primarily serves a functional purpose.

Other product categories may contain mostly brands with high self-expressive images. For instance, the purse product category has many designer brands such as Gucci or Liz Claiborne which would likely receive ratings of 9.

Please turn the page to continue.

APPENDIX IIID-3 -- continued

Please rate the extent to which the following brands have a self-expressive image on a scale from 1 to 9 where 1 indicates Not At All and 9 indicates Very Much.

1----|----|----|----|----|----|----|----9
Not At All Very Much

Indicate your rating by filling in the blank next to the brand with a number from 1 to 9.

- 1) _____ Rolex Watch
- 2) _____ Timex Watch
- 3) _____ Swatch Watch
- 4) _____ Seiko Watch
- 5) _____ Irish Spring Soap
- 6) _____ Ivory Soap
- 7) _____ Camay Soap
- 8) _____ Dial Soap
- 9) _____ Total Cereal
- 10) _____ Froot Loops Cereal
- 11) _____ Grape Nuts Cereal
- 12) _____ Cheerios Cereal
- 13) _____ Nike Gym Shoes
- 14) _____ Reebok Gym Shoes
- 15) _____ L.A. Gear Gym Shoes
- 16) _____ Addidas Gym Shoes

APPENDIX IIID-3 -- continued

In this section, we would like you to rate how representative an example of their product category each brand is on the following scale where 1 indicates Not At All Representative and 9 indicates Very Representative:

1----	----	----	----	----	----	----	----	9
Not At All Representative							Very Representative	

A 9 means that you feel the brand is very representative of your idea or image of what the product category is.; a 5 means you feel the product fits moderately well; and a 1 means you feel the brand fits poorly with your image of the category (or is not a member at all).

For instance, Coca-Cola would likely be very representative of soft drinks and receive a high rating, while Mountain Dew would likely be less representative of soft drinks and receive a lower rating.

Please turn the page and continue.

APPENDIX IIID-3 -- continued

Please rate how representative the following brands are of their product categories on a scale from 1 to 9 where 1 indicates Not At All Representative and 9 indicates Very Representative.

1----|----|----|----|----|----|----|----9
 Not At All Representative Very Representative

Indicate your rating by filling in the blank next to the brand with a number from 1 to 9.

- 1) _____ Rolex Watch
- 2) _____ Timex Watch
- 3) _____ Swatch Watch
- 4) _____ Seiko Watch
- 5) _____ Irish Spring Soap
- 6) _____ Ivory Soap
- 7) _____ Camay Soap
- 8) _____ Dial Soap
- 9) _____ Total Cereal
- 10) _____ Froot Loops Cereal
- 11) _____ Grape Nuts Cereal
- 12) _____ Cheerios Cereal
- 13) _____ Nike Gym Shoes
- 14) _____ Reebok Gym Shoes
- 15) _____ L.A. Gear Gym Shoes
- 16) _____ Addidas Gym Shoes

APPENDIX IIID-3 -- continued

In this last section, we are interested in your usage of various product categories. You will asked to rate your usage of a product on the following scale where 1 indicates Never Use and 9 indicates Frequently Use.

1-----9
Never Use Frequently Use

APPENDIX IIID-3 -- continued

In this last section, we are interested in your usage of various product categories on a 9 point scale where 1 indicates Never Use and 9 indicates Frequently Use.

1-----|-----|-----|-----|-----|-----|-----|-----9
Never Use Frequently Use

Indicate your rating by filling in the blank next to the product category with a number from 1 to 9.

- 1) _____ Hot Cereal
- 2) _____ Waffles
- 3) _____ Lollipops
- 4) _____ Popsicles
- 5) _____ Liquid Hand Soap
- 6) _____ Bubble Bath
- 7) _____ Room Freshener
- 8) _____ Shoe Deodorizer
- 9) _____ Canvas Gym Shoes
- 10) _____ Wingtip Shoes
- 11) _____ Thirst Quencher
- 12) _____ Pain Relieving Rub
- 13) _____ Bracelet
- 14) _____ Pocket Watch
- 15) _____ Alarm System
- 16) _____ Outdoor Thermometer

APPENDIX IV

DETAILED LISTING OF TASKS FOR EXPERIMENT 3

APPENDIX IV-1
PRELIMINARY INSTRUCTIONS FOR EXPERIMENT 3

This survey is interested in your reactions to some potential new products. These products will be different extensions of current brand names. A brand extension occurs when a known brand name is used in new areas.

Many brands now extend their names to a wide variety of products. For instance, Honda now makes lawnmowers, Gerber makes baby clothes, and Ivory makes shampoo.

In this survey, the products you will evaluate are potential brand products and do not currently exist. We simply want to know your thoughts and feelings about these possible brand extensions. There are no correct answers.

You may think some extensions are acceptable, while others are not. Please answer honestly, since we are interested in your personal reactions. Therefore, we ask that you do not discuss this survey until everyone has completed it. All your responses will be anonymous.

Thank you for your cooperation.

APPENDIX IV-1 -- continued

On the next two pages, you will be asked to answer several questions about potential products for the brand Apple. Apple currently makes personal computers for home and desktop use.

When evaluating these hypothetical products, assume you are interested in buying the products. We would like you to evaluate how well you think the brand Apple could make these products and if they made them what the products would be like.

APPENDIX IV-2
INSTRUCTIONS FOR EVALUATION JUDGMENTS IN EXPERIMENT 3

Please answer several questions about a potential product. The product is an Apple mainframe computer. Mainframe computers are large stand-alone machines with substantial memory capacity and can accomodate multiple person simultaneous use.

Indicate your ratings by placing a number from 1 to 9 in the provided blank.

- 1) Please rate your overall evaluation of Apple mainframes relative to other brands of mainframes using the following scale.

Rating: _____
 1 _____ 9
 One of the worst One of the best

- 2) Please rate your preference for Apple mainframes using the following scale.

Rating: _____
 1 _____ 9
 Dislike Like

- 3) We are interested in your thoughts about Apple mainframes. Could you please explain why this extension would or would not be appropriate for Apple. These thoughts may include physical product features, benefits, usages, or any other associations.

APPENDIX IV-3
INSTRUCTIONS FOR MANIPULATION CHECK AND COVARIATE RATINGS
FOR EXPERIMENT 3

In this section, you will be asked to provide some brief background information. We would like to know your opinions about existing personal computer brands. Indicate your ratings by filling in the blank next to each brand with a number from 1 to 9.

- 1). Please rate your preference for the following brands on a scale from 1 to 9 where 1 indicates Dislike and 9 indicates Like.

1----|----|----|----|----|----|----|----9
Dislike Like

Hewlett-Packard _____ IBM _____
Apple _____ Compaq _____

- 2). Please rate how familiar you are with the following brands on a scale from 1 to 9 where 1 indicates Unfamiliar and 9 indicates Familiar.

1---|---|---|---|---|---|---|---9
Unfamiliar Familiar

Your familiarity with a brand means how aware you are of the brand or how often you have heard its name, not necessarily that you use the brand.

Hewlett-Packard _____ IBM _____
Apple _____ Compag _____

APPENDIX IV-3 -- continued

- 3). This question is concerned with the breadth of different product categories that a brand name offers. Please judge whether a brand name brings a wide variety of products to mind or only one product comes to mind using the scale below.

One Product Extremely Wide Variety
of Products

1-----|-----|-----|-----|-----|-----|-----|-----9

Hewlett-Packard _____
Apple

IBM _____
Compaq _____

- 4). Brands may be chosen as a means of self-expression. Typically, brands with self-expressive images convey prestige or high status to other people. For instance, a Rolex watch would likely receive a high rating since it conveys an image of prestige, while a Timex watch would likely receive a low rating.

Please rate the extent to which the following brands convey an image of prestige or high status.

1-----|-----|-----|-----|-----|-----|-----|-----9
Not At All Very Much

Hewlett-Packard _____
Apple

IBM
Compaq _____

- 5). Please rate your usage of the following brands on a 9 point scale where 1 indicates Never Use and 9 indicates Frequently Use.

1-----|-----|-----|-----|-----|-----|-----|-----9
Never Use Frequently Use

Hewlett-Packard _____
Apple _____

IBM _____
Compaq _____

APPENDIX IV-3 -- continued

- 6). Please rate the technical difficulty a personal computer maker would have in producing the following products on a scale where 1 indicates No Difficulty and 9 indicates Extreme Difficulty.

1----|----|----|----|----|----|----|----9
 No Difficulty Extreme Difficulty

a) a mainframe computer Rating: _____

b) a machine reader Rating: _____

APPENDIX V

DETAILED LISTING OF TASKS FOR EXPERIMENT 4

APPENDIX VA
INSTRUCTIONS FOR EXPERIMENT 4 PRETEST

In this section, you will be asked a few questions about product categories. Using the following scale, please place a number from 1 to 9 in the corresponding blank to indicate your rating.

1 9
Not At All Similar Very Similar

1) How similar are dresses and nightgowns?

Rating _____

1 9
Not At All Similar Very Similar

2) How similar are dresses and briefcases?

Rating _____

1 9
Not At All Similar Very Similar

3) How similar are dresses and trenchcoats?

Rating _____

1-----9
 Not At All Similar Very Similar

APPENDIX IVA -- continued

In this section, you will be asked a few questions about product categories. Using the following rating scale, please place a number from 1 to 9 in the blank next to each product category.

---- ---- ---- ---- ---- ---- ---- ----
1 9
Not At All Relevant Very Relevant

1) How relevant are the attributes country and nature in the following product categories?

Nightgown _____	Picnic Basket _____
Trenchcoat _____	Briefcase _____

2) How relevant is the attribute professional in the following product categories?

Nightgown _____	Picnic Basket _____
Trenchcoat _____	Briefcase _____

3) How relevant is the attribute business attire in the following product categories?

Nightgown _____	Picnic Basket _____
Trenchcoat _____	Briefcase _____

4) How relevant is the attribute floral/flowers in the following product categories?

Nightgown _____	Picnic Basket _____
Trenchcoat _____	Briefcase _____

APPENDIX VB-1
STIMULUS SET FOR EXPERIMENT 4

SIMILARITY OF EXTENSION CATEGORY

EXTENSION RELEVANCE	SIMILARITY OF EXTENSION CATEGORY	
	SIMILAR	DISSIMILAR
LAURA ASHLEY	Nightgown	Picnic Basket
LESLIE FAY	Trenchcoat	Briefcase

APPENDIX VB-2
LATIN SQUARE DESIGN FOR ORDER OF EXTENSION JUDGMENTS
IN EXPERIMENT 4

ORDER	EXTENSION PRODUCT CATEGORY			
	1	2	3	4

	1	2	3	4
	2	4	1	3
	3	1	4	2
	4	3	2	1

APPENDIX VC-1
INTRODUCTION PAGE OF STIMULUS BOOKLET FOR EXPERIMENT 4

This survey is interested in your reactions to some potential new products. These products will be different extensions of current brand names. A brand extension occurs when a known brand name is used in new areas.

Many brands now extend their names to a wide variety of products. For instance, Honda now makes lawnmowers, Gerber makes baby clothes, and Ivory makes shampoo.

In this survey, the products you will evaluate are potential brand products and do not currently exist. We simply want to know your thoughts and feelings about these possible brand extensions. There are no correct answers.

You may think some extensions are acceptable, while others are not. Please answer honestly, since we are interested in your personal reactions. Therefore, we ask that you do not discuss this survey until everyone has completed it. All your responses will be anonymous.

Thank you for your cooperation.

APPENDIX VC-1 -- continued

On the next four pages, you will be asked to answer several questions about potential products for the brand Leslie Fay. Leslie Fay currently makes women's dresses.

When evaluating these hypothetical products, assume you are interested in buying the products for yourself or a friend. We would like you to evaluate how well you think the brand Leslie Fay could make these products and if they made them what the products would be like.

APPENDIX VC-2
INSTRUCTIONS FOR COVARIATE RATINGS IN EXPERIMENT 4

In this section, you will be asked to provide some brief background information. We would like to know your opinions about existing women's dress brands. Indicate your ratings by filling in the blank next to each brand with a number from 1 to 9.

1). Please rate your preference for the following brands on a scale from 1 to 9 where 1 indicates Dislike and 9 indicates Like.

1-----|-----|-----|-----|-----|-----|-----|-----9
DislikeLike

Liz Claiborne _____ DKNY
Laura Ashley _____ Leslie Fay _____

2). Please rate how familiar you are with the following brands on a scale from 1 to 9 where 1 indicates Unfamiliar and 9 indicates Familiar.

1----|----|----|----|----|----|----|----9
Unfamiliar Familiar

Your familiarity with a brand means how aware you are of the brand or how often you have heard its name, not necessarily that you use the brand.

Liz Claiborne _____ DKNY _____
 Laura Ashley _____ Leslie Fay _____

3). This question is concerned with the breadth of different product categories that a brand name offers. Please judge whether a brand name brings a wide variety of products to mind or only one product comes to mind using the scale below.

One Product Variety Extremely Wide of Products

Liz Claiborne _____ DKNY
Laura Ashley _____ Leslie Fay _____

APPENDIX VC-1 -- continued

4). Brands may be chosen as a means of self-expression. Typically, brands with self-expressive images convey prestige or high status to other people. For instance, a Rolex watch would likely receive a high rating since it conveys an image of prestige, while a Timex watch would likely receive a low rating. Please rate the extent to which the following brands convey an image of prestige or high status.

1----|----|----|----|----|----|----|----9
 Not At All Very Much

Liz Claiborne	_____	DKNY	_____
Laura Ashley	_____	Leslie Fay	_____

5). Please rate how representative an example of women's dresses each brand is on the following scale where 1 indicates Not At All Representative and 9 indicates Very Representative:

1----|----|----|----|----|----|----|----9
 Not At Representative Very Representative

A 9 means that you feel the brand is very representative of your idea of women's dresses; a 5 means you feel the product fits moderately well; and a 1 means you feel the brand fits poorly with your idea of women's dresses. For instance, Coca-Cola would likely be very representative of soft drinks and receive a high rating, while Mountain Dew would likely be less representative of soft drink brands and receive a lower rating.

Liz Claiborne	_____	DKNY	_____
Laura Ashley	_____	Leslie Fay	_____

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BIOGRAPHICAL SKETCH

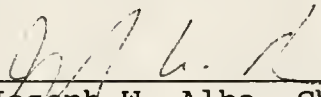
Susan was born August 23, 1965, in Oak Lawn, Illinois. She attended Mother McAuley High School in Chicago from 1979 to 1983. For the next four years she pursued an undergraduate degree in marketing at the University of Illinois at Urbana-Champaign. She graduated summa cum laude in 1987 with a degree in marketing and her name was placed on the Bronze Tablet in the university library.

She entered the Ph.D. program in marketing at the University of Florida in Fall 1987. She was the recipient of a three year University of Florida Presidential Graduate Fellowship from 1987 to 1990.

During her term in the doctoral program, she worked on several academic consumer behavior research projects. Susan was the 1991 American Marketing Association Doctoral Consortium Fellow from the University of Florida.

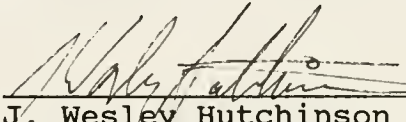
She accepted an offer for a position as Assistant Professor of Marketing at the University of Texas at Austin. In Fall 1991, she began teaching at the University of Texas.

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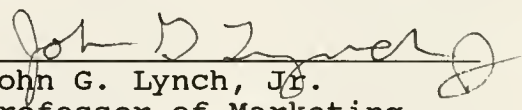
Joseph W. Alba, Chairman
Associate Professor of
Marketing

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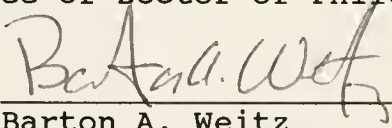
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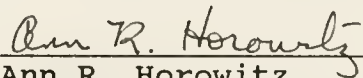
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This dissertation was submitted to the Graduate Faculty of the Department of Marketing in the College of Business Administration and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

May 1992

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